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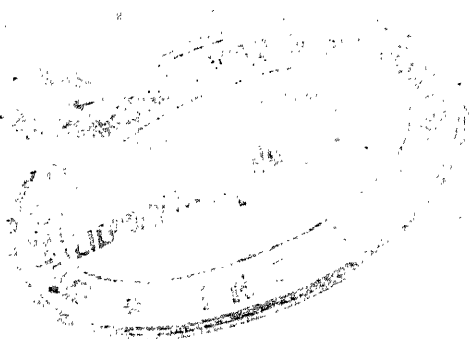
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CONTENTS.

	PAGE
On Oath and Ordeal.—By Bertram Fulke Hartshorne... ..	1.
Notes on <i>Prinophilus Vincens</i> .—By W. V. Legge, F. Z. S.	13.
The Sports and Games of the Singhalese.—By Leopold Ludovici.	17.
On Miracles.—By J. D'Alwis, M. R. A. S.... ..	42.
On the occurrence of <i>Scolopax Rusticula</i> and <i>Gallinago Scolopacina</i> in Ceylon.—By W. V. Legge, F. Z. S.	64.
Transcript and Translation of an ancient Copper-plate Sannas.— By Mudliyar Louis de Zoysa, Chief Translator to Govern- ment	75.



ON OATH AND ORDEAL.

BY BERTRAM FULKE HARTSHORNE, C. C. S.

It has been a common practice in all ages of the world to ratify a solemn agreement, and to settle any disputed question regarding a moral obligation, or a mutual contract, by means of some form of oath or ordeal. The reason of this is obvious. It is supposed that such a procedure affords a security for truthful and honest dealing; and it is curious to observe the various methods in which different races of people have set about attaining this desirable end. The Singhalese Buddhists are in no way conspicuous for devotion to truth; but although ordinary lying is regarded by them as venial, if not commendable, they put the fullest confidence in any statement made according to one of the many forms of oath which they themselves employ, and they consider that any violation of such oath is followed by the most disastrous consequences. The story of king Chetiya, in the *Ummagga Jātakaya*, is one which illustrates the Buddhist idea upon this subject. It is narrated that "at the time when the life of man was longer than it now is, king Chetiya ruled over Dambadiwa. His body was redolent of sandal wood, and from his mouth proceeded the odour of the blue lotus flower; he was endued with the superhuman power (irdhi) of sitting cross-legged in the air. He was ever guarded, night and day, by the four gods of the Kāmāwacha world. His fourfold army consisted of innumerable elephants and horses, and he exercised supreme

“royalty over Dambadiwa, which is ten thousand yoduns
 “in extent (that is 130,000 miles). But in consequence
 “of the lie of which such a king as this king Chetiya was
 “guilty, the scent of sandal wood departed from his body,
 “the lotus scent which issued from his mouth gave place to
 “a foul odour, and the deities which kept guard about him
 “in the four quarters of the heavens deserted him. He was
 “deprived of the power of sitting cross-legged in the air,
 “and so fell to the ground. Then by reason of the false-
 “hood which he had uttered, the earth parted asunder,
 “and his living body was enveloped, as in a red blanket,
 “with flames of fire from the lowest of the infernal regions
 “and he was born again in hell.”

In the same way the educated and refined Greeks
 believed that some of the worst punishments in the infer-
 nal regions were allotted to those persons who had broken
 their oaths. The consequence of this crime was detailed
 in the answer of the Delphic oracle to Glaucus, and
 the story is given by Herodotus (vi, 86.) A man from
 Miletus had entrusted some money for safe keeping to
 Glaucus; after a time he died, and his heirs claimed the
 money by bringing the tokens, upon the production of
 which it had been arranged between Glaucus and the
 Milesian that the money was to be returned. Glaucus
 however denied all knowledge or recollection of the alleged
 transaction, and went to Delphi and asked the oracle
 if he should restore the money, or keep it by swearing an
 oath that he had never received it. The answer of the
 oracle was this : “Glaucus, son of Epikydes, for the pre-
 “sent it is more profitable for you by swearing to succeed
 “in carrying off the booty. Swear, then, for at any rate
 “death awaits even the man who swears truly. But there

“ is a nameless son of Oath who has neither hands nor feet—yet he is swift in his pursuit until he seizes and destroys the whole house and race. But the posterity of a man whose oath is true is the better hereafter.”

Upon hearing this answer Glaucus asked to be forgiven for what he had said, but the Pythian goddess replied that to tempt the god was the same thing as if he had actually carried his purpose into effect.

He then restored the deposit, but, as Juvenal says, “*Reddidit ergo metu non moribus*”—he gave it back through fear, not because it was his duty to do so—and he adds that the response of the oracle became literally true, for the whole family and posterity of Glaucus were utterly destroyed.

The Greeks, however, commonly applauded falsehood, if it were clever and turned out to be successful ; and even Plato said that the lie which the gods hated was the truthful statement of a misinformed mind.

In the time of Homer, the river Styx was considered to be the most sacred object by which either mortals or immortals could swear. It was the river, as Virgil says, “*Dî cujus jurare timent et fallere numen*,” and a comparison was drawn by Aristotle between this idea of the Greek mythology and the theory of Thales, that water was the first principle of all things. Some very suggestive remarks were made by Hegel upon this point: “ This ancient tradition,” he says, “ is susceptible of a speculative interpretation. When something cannot be proved—that is, when objective monstration fails, as, in reference to a payment, the receipt ; or, in reference to an act, the witnesses of it ;—then the oath, this certification of myself, must, as an object, declare that my evidence is

“ absolute truth—as now, by way of confirmation, one
 “ swears by what is best, by what is absolutely sure, and as
 “ the god swore by the subterranean water, there seems
 “ to be implied here this, that the essential principle of
 “ pure thought, the innermost being, the reality in which
 “ consciousness has its truth, is water ; I declare, as it
 “ were, this pure certainty of my own self as object, as
 “ God.”

That is to say, the basis of the oath is laid upon the essential and purest form of absolute reality. It is easy, then, to see why the many different oaths of the Sinhalese Buddhists, who deny all such ideas as essence and reality, do not fall within the canon laid down by Hegel, and are not referable to any one distinct principle ; while they are thus unlike the various forms of oath observed by people of different race and religion.

The most solemn Sinhalese oaths are governed by no considerations of the absolute and immutable reality of their object, such as are characteristically assigned by Hegel to the essence by which truth may be demonstrated. They are various in form and arbitrary in principle. The respective weight which each carries with it is due to an estimation of the purely material advantage or disadvantage which, in the end, it is likely to secure, rather than to any belief in its real *à priori* efficacy. The worst evil which can happen to a Buddhist is the misfortune of repeated birth, and we have often heard Kandyans seriously attribute their disasters in this life to some deficiency of merit on their part in a previous state of existence.—Nirwāna is the great final cause of life, and every thing which is likely to stand in the way of attaining to Nirwana is scrupulously and conscientiously avoided. Each Bud-

dhist, then, has his own individual standard of moral excellence, and, according to his lights, he regulates his conduct, by that which he considers best calculated to promote his ultimate welfare. At Pantura, in the Déwale, is a colossal image of Vishnu bedizened with the thank-offerings of many Buddhists, who by an inconsistent anomaly, regard it with great reverence; the oath held most sacred by the people of the neighbourhood is taken by laying the hand upon the image.

It is frequently resorted to in cases of disputed civil claims, and even if a convert from Buddhism sues a Buddhist for a debt, he will usually be content to be non-suited if the defendant will go through the customary formality of thus swearing by Vishnu that he is not liable.

In the Kandyan country there is a great variety in the forms of solemn oath.

The Bana book, the සතිපඨාන සූත්‍රය *Sati patthāna Sūtraya*, is sworn upon, as in the low country. Salt, fire, paddy or the මිටි, ma wi, the හලඹ, Halamba, or tinkling armlets of devil dancers, කපු, Kapu, or the cotton used for spinning, and the blacksmith's forge, are each in their turn the chosen objects to which the Kandyans appeal in truth of their assertions. The peculiar efficacy of the forge is said to consist in its manifestly powerful character, while each of the others is selected for the solemnity on account of the relative degree of excellence attributed to it by its simple-minded votaries.

Perhaps the most obligatory of all oaths is taken by a Sinhalese man when he swears by laying his hand on the head of his eldest son. His belief being that any falsehood uttered under such circumstances will involve the ruin and destruction of his whole family and posterity.

His father mother and sister as well as his gurunanse or teacher are invoked in testimony of the truth; and he is ready if necessary to swear by the sun. But he ignores the beautiful passage in *Romeo and Juliet*:—

Romeo.—Lady by yonder blessed moon I swear:
That tips with silver all these fruit-tree tops.

Juliet.—O swear not by the moon, the inconstant moon,
That monthly changes in her circled orb,
Lest that thy love prove likewise variable.

Romeo.—What shall I swear by?

Juliet.— Do not swear at all;
Or, if thou wilt, swear by thy gracious self,
Which is the god of my idolatry,
And I'll believe thee.

Act 2, Scene II.

For an oath taken by the moon is in this country by no means a mere sentimental formula.

The so-called tooth of Buddha enshrined in the *Dalada Máligáwa* at Kandy is an object of profound reverence, and an oath taken thereby is supposed to carry with it an obligation proportionate to the general veneration paid to the relic, whilst one of their most important oaths is taken by the head of Buddha.

We learn from Herodotus, that the most sacred oath of the ancient Scythians, was sworn by the king's hearth. It was an oath which had a peculiar significance and effect—whenever the king fell ill, he sent for three of his soothsayers, and inquired the reason of his malady. They invariably said that it was because some one had sworn falsely by the king's hearth. The person whom they accused was sent for, and charged with thus being the author of the king's sickness, and he, of course, protested his innocence. Thereupon other soothsayers were called in; and if they agreed with the opinion of those first consulted, the perjurer was put to death, and his property divided

amongst those who had originally accused him ; but if there was a difference of opinion among the soothsayers, a large number were summoned, and the truth determined by a majority of votes. In case the verdict went in favor of the accused, the persons by whom he was first charged were put to death, with certain formalities, the prospect of which must have imparted a feeling of great uneasiness to the discharge of the function of divination. Whether the result of the inquiry affected the king's health in any way it is not recorded. The Scythian method of swearing to a treaty was attended with a ceremony which is not, we believe, without a parallel among other barbarous nations of later date. It is thus described by Herodotus :
 " They pour wine into a large earthenware bowl and mix
 " therewith the blood of the parties who are entering into
 " the treaty, by striking a part of the body with an awl or
 " or cutting it with a sword. They then dip into the
 " bowl a scimitar, and arrows, and an axe, and a javelin.
 " After this they recite their solemn vows at length, and
 " then the contracting parties themselves and the most
 " worthy of their followers drink off the libation."

Herodotus says that without doubt the Scythians were masters of Asia for twenty-eight years, and we have heard it alleged that there is ground for the belief that some remnant of that ancient race found their way to the South of India. It is more probable that the course which they took lay in quite the opposite direction. At any rate we look in vain for any trace in Ceylon of the customs or traditions of that people. It would, however, be interesting to know if among any class of the inhabitants of this Island such indications may be observed. It is to be remembered that this is a country where special

rites and ceremonies have been perpetuated unimpaired through countless generations, and that a custom 2,400 years old would be by no means a marvel of antiquity.

The celebrated Bo-tree at Anurádhapura has a recorded and well-authenticated history extending over 2000 years, and, as may be supposed, at that place an oath taken by it is considered to be a most binding obligation on a Buddhist to speak the truth.

In the neighbourhood of Minnériya there is a proverb “මිනේරියේ පනම් තියන්ඩ” Minnériyé panam tiyanda--referring to the custom of taking a solemn oath by laying a silver fanam upon a sacred rock by the side of the lake. The rock or slab upon which the coin is deposited was formerly part of the bund or embankment. It seems to have been thought, in some way or other, to be indued with a peculiar holiness, and it was removed about half a mile from its original position, and a Déwála built near it. The oath is taken in presence of the Kapurála; and it seems to be an essential part of the ceremony that the money should first be deposited.

In the same way a relic has been recently discovered in the Morowak Kóralé, and it is turned to a similar devout, and at the same time profitable, purpose. Both these relics, however, have a real and very remarkable characteristic. It is reported that they positively guarantee that a man who swears by them speaks the truth; whereas in a court of justice it is too well known that as a general rule no such result can be looked for.

There are few localities regarded with more universal reverence in Ceylon than Kataragama. The legends connected with Kandaswāmiy, the tutelary deity of the place,

are surrounded with much interesting and extravagant tradition of a purely oriental type, and this probably constitutes the chief reason why the annual pilgrimage to this chief temple is so largely attended by people of various nations and creeds.

A shrine in honour of the deity is to be seen in the branch dewale or temple at Kandy, and a civil claim was recently decided there between two chetties in the following manner. The plaintiff sued the defendant for £5 15s od. for board and lodging. By mutual agreement they repaired to the temple where the defendant lighted a candle, and holding it before the shrine declared that he did not owe the money. He then extinguished the light, and the plaintiff with apparent cheerfulness subsequently withdrew his claim and paid the costs of his adversary.

There is, however, a case mentioned by Sir Charles Marshall (Judgments p. 142) in which a similar ordeal at Jaffna does not seem to have been attended with infallible result. He says : " a Judge of one of the northern districts suggested to the Supreme Court the expediency of sending the Malabar witnesses to a temple, to be sworn; in the hope that the more imposing nature of the ceremony, being one to which the Malabars sometimes have recourse among themselves, might be more efficacious in obtaining the truth. After a full consideration of the question, however, by all three Judges, they directed the District Judge to be informed that they should not feel justified in sanctioning the course proposed--that though they were fully aware of the difficulty of arriving at the truth, and though they agreed that this object might sometimes be attained by the

“ method proposed, still it would often fail as had been
 “ shewn by former experience. That a striking instance
 “ of such failure occurred about the year 1816, when the
 “ witnesses in some criminal case of importance, having
 “ been sworn in the temple of Kandaswamy near Jaffna,
 “ as being reputed a temple of peculiar sanctity, the whole
 “ of the witnesses on one side or the other were afterwards
 “ found to have perjured themselves; and that the
 “ practice was afterwards discontinued by the Supreme
 “ Court from a conviction of its inefficiency.”

• The same learned writer also relates an interesting
 circumstance regarding the method whereby an oath was
 said to be usually taken by a Rhodiya. It is interesting be-
 cause, as we believe, it has now fallen entirely into dis-
 use; it formed one of those peculiar social distinctions
 which are so rapidly disappearing in Ceylon, and which
 make it so necessary that the ethnological characteristics
 of the people should be carefully observed and accurately
 recorded. “ A question,” he writes, “ arose in 1834
 “ whether a witness of the Rhodiyian caste, who was ex-
 “ amined in the Court of one of the Southern Districts,
 “ ought to prostrate himself on the occasion of taking the
 “ oath, which was represented to be the ceremony pre-
 “ scribed by custom for persons of that class. The King’s
 “ Advocate, to whom the matter was referred, and who
 “ was naturally startled at a mode of taking an oath, so
 “ revolting to English customs and feelings, and so un-
 “ usual even in Ceylon, consulted the then Chief Justice
 “ on the subject.” The opinion of Sir Charles Marshall
 was given thus : “ Such distinctions unquestionably do
 „ exist, and are observed, almost necessarily, I believe,

“in the Courts. In the Northern Districts, the low caste Malabars, instead of swallowing the Ganges water, take off one of their cloths, and step over it as the mode of imprecation. I never heard of this ceremony of prostration, nor indeed do I ever remember a witness of the Rhodiyā caste, being examined before me.” At the present time a Rhodiya comes into court and gives his evidence after the usual form of affirmation in the same way as any other witness. This form of affirmation is repeated by every witness who is not a Christian and renders him liable, in case of falsehood, to the consequences of perjury. Its moral value, however, must be admitted to be almost infinitesimal. About forty years ago a system was adopted whereby Buddhist Priests or Kapuralas, and Moorish Priests were employed in some of the Courts to administer oaths to witnesses in accordance with the rites of their respective religions. But either in consequence of the failure of this plan to secure veracity, or from some *odium theologicum*, it was soon afterwards abandoned.

Cordiner mentions (vol. I. 262) a somewhat similar ceremony which we believe is now wholly obsolete: “one day while the Supreme Court of Judicature was sitting at Batticaloa, I had an opportunity of seeing the ceremony of administering an oath to a Ceylon Brahmin. The sacred book, written on palm leaves, lies on a small oblong table, carefully wrapped up, bound round with a long cord, and covered over with several folds of coloured muslin. The table has six turned legs and is placed upon the head of a young boy, behind whom an older Brahmin stands, holding the two legs of the table which are nearest to him, one in each hand; afterwards

“ it is laid upon the floor, the covers taken off, and the
 “ volume displayed. The officiating Brahmin repeats the
 “ nature of the obligation; and pours a little water into
 “ the hand of the person who swears; which he shakes
 “ and sprinkles on his head: then, bowing down, he
 “ touches the book with his hands, repeating the prescribed
 “ words, and rising up, the ceremony is finished.”

Two ancient forms of ordeal remain to be mentioned which we frequently find alluded to in old Kandyan deeds. They seem now to have quite gone out of use; the one was the ordeal of thrusting the hand into boiling oil and cow dung, the particular merit or significance of which it is hard to see. It was specially resorted to in cases of disputed title to land. The other was the ordeal of putting the hand into a chatty, wherein a live cobra had been placed. This is thoroughly intelligible. It was a form of ordeal which no doubt commanded genuine belief, not only on account of the risk of personal injury involved in the process, but also by reason of the belief which invested this snake with infallible and sacred attributes.

Note on *Prionochilus Vincens*,* Sclater, (Legge's Flower-Pecker) by W. V. LEGGE, F. Z. S.

(Read Feb., 3d. 1873.)

Dimensions.—Male, total length 4·15 in.; wing 2·3; tail 1·2; tarsus ·5; middle toe with claw ·5; hind toe 0·25; bill to gape 0·45.

Description.—Iris reddish brown; bill black; lower mandible light at base; legs and feet blackish brown. Head, face, hind neck, upper surface, with lesser wing coverts and margins of greater wing covert and tertiary feathers dull steel blue, palest on the rump (which in some specimens has the feathers edged whitish) and with the frontal feathers dark centred; wings blackish brown with the basal portion of inner webs and under wing coverts white; tail black with a white terminal spot, mostly on the inner webs of the four outer feathers and decreasing towards the innermost; chin, throat and chest white changing on the breast and under surface to primrose yellow; flanks dusky, under tail coverts white, washed with yellow.

Female, length 4 in.; wing 2·25; tail 1·1. The female is throughout lighter and duller in plumage than the male.

Bill and iris as in that sex; legs and feet lighter in hue. Head and hind neck faded bluish ashen; back dusky olivaceous; wing coverts margined with the same; wings lighter brown than in the male; uppertail coverts

*. This bird has already been described in the Proc. L. Z. Society this year, but as it is quite unknown to any member of our Institution I subjoin the above description.

pervaded with dark grey; sides of neck and chest ashy; the white of throat being less clearly defined; the yellow of under surface less bright and less in extent, the brown of the flanks encroaching more on it.

History of Species:---I had the good fortune to discover this curious little bird in the Southern Province, on the 13th of March last. The genus to which it belongs was totally new to me and as it did not occur in India, I was, from want of books of reference on malayan Avifauna, unable, when describing it, to give it a name, and I therefore transmitted specimens together with my notes, to the Zoological Society of London, at a meeting of which in the 18th of June last, the species was submitted, and named by the Secretary, Dr. P. L. Sclater, *Prionochilus Vincens*. The existence in Ceylon of this genus of the Dicœinæ is most remarkable; it is a malayan type unknown as yet in India, and has for its nearest ally a bird of the same genus, discovered by Wallace in the Molluccas islands. How then are we to account for the occurrence of a species so far from the haunts of the rest of its family? It would seem to indicate, at some very remote period, the existence of a connection between our island and the Malay archipelago, in support of which theory, from an ornithological point of view, I may mention the recent discovery in the hills at N. Elliya of a whistling thrush * (*Miophonus*) belonging to a malayan section of its family.

The distribution of our little bird will doubtless be found to be very local, and I question whether further re-

* *Arrenga Blighi*, Holdsworth, named after its discoverer, Mr. S. Bligh of Kandy.

search will extend its range beyond the limits I now assign to it. It was discovered in one of the primary forests of the Gangebodde Pattoo, not far from Galle, and afterwards traced by me through the Hinedoom Pattoo to the Lion King Forest (*Singha Raja Avidya*), on the southern borders of the Kookool Korle, where I procured it at an elevation of about 2500 feet above the sea level. It is therefore, like most of our forest-loving birds (the limits of whose distribution, by the way, have been very erroneously fixed) both a low country and hill species. The district lying to the North of the valley which divides the central mountain group from the Southern ranges, or, in other words, the region extending from Ratnapoora to the Hapootella slopes has been searched by naturalists and collectors without meeting with this bird, and therefore it may be concluded that it is confined to the hills of the South-west of the Island, ranging from perhaps the Eastern side of the Morowa Korle through the "Lion King" and other forests bordering the Gindurah, and from thence through the extensive jungles of the Gangebodde pattoo to the Kottowe district where I first met with it. Should these limits prove to be correct, the habitat of this little bird is exceedingly confined and has no parallel in Ceylon with the exception perhaps, of the White-fronted Starling, (*Temenuchus Senex*) which has only been found as yet, in the forest along the upper part of the Gindurah, indeed in just the same locality as the subject of this note.

This Flower-pecker dwells exclusively in the high jungle or "Mookalaney" of the Sinhalese, and effects the leaves and smaller branches of moderately-sized trees, but

more particularly the luxurious creeper, (*Freycinetia angustifolia*), which grows so plentifully in the Southern forests round the trunks of tall trees, entwining and clothing them completely until they have the appearance of columns of ivy. It associates in small flocks and when this plant is in fruit, may be seen in little parties, feeding on its seeds. Its movements are most active, now hovering for an instant over a flower, like other members of its family, now clinging "tit-like" to the under side of some chosen leaf. I have but once observed it in the open and that was in a forest clearing where it was searching the flowers of the "Bowittaya" plant, (*Osbeckia virgata*.) Although it usually takes but short flights from tree to tree in the jungle, its powers of locomotion are considerable and it may be seen wending its way across openings in the forest from one belt to another.

The note of this little denizen of the woods is a weak "tse-tse-tse" scarcely audible on a stormy day amidst the sighing of the wind in the trees and is generally uttered in concert when searching for its food in small flocks.

I know nothing as yet of its incubation, but it would appear to breed in the South-west monsoon at different dates according to the locality it inhabits; individuals procured in the low-country forests in June had the sexual organs developed, and those killed in the Singha Rajah forest in August were in a similar condition.

The Sports and Games of the Singhalese, by LEOPOLD LUDOVICI.

(Read Feb., 3d. 1873.)

If the Sports and Games of a people like their popular Songs and Ballads, may be supposed to serve as an index of character, the favorite pastimes of the Singhalese but too faithfully reflect the tame and undemonstrative nature of the national temperament. Inhabiting a climate which renders exertion of any kind distasteful, the Singhalese in common with all inter-tropical races, indulge in exercise for exercise's sake, but to a very small extent. Hence it is hardly matter for surprise that their games and sports should be cast after the tamest and soberest of patterns. In venturing on this remark the writer does not mean to convey the impression that the Singhalese as a race, are incapable of much sustained physical exertion; on the contrary, any one who has seen a Singhalese peasant at work in his Paddy field or Chena, under a burning hot sun, will allow that, provide him with the motive for labour, he can rise superior to the disadvantages of climate. But this motive, it will be conceded cannot operate where amusement or pastime is the only object. His work done, the inducement for further exertion ceases, and rest and repose under the cool and refreshing shade of a tree, are his highest enjoyment. To expect therefore, a people so circumstanced to take delight in violent out-door sports, would be to look for an exhibition of physical energy alike incompatible with their natural instincts, and inconsistent with those climatic conditions which forbid superfluous exertion. Nevertheless,

that the Singhalese should in spite of an enervating climate, still count among their field games at least, one demanding nearly as much violent exercise as Cricket, is sufficient proof that when the inducement is present, the Singhalese youth is as capable of exertion and endurance as his more favored brother of a colder climate. While, however, the climate may be considered the principal cause which tends to make the Singhalese an ease-loving people, it must not be forgotten that there are others which conduce to the same end. Among these latter may be mentioned the entire absence, till very lately, of any thing like a spirit of emulation, in consequence of the equally entire absence of a system of school organization, that recognized the importance of the play ground. They have no public schools, colleges, or universities, the youth of one institution competing among themselves or with those of another, for the laurel crown or palm of victory. Under their own Native Sovereigns, and centuries before the Portuguese secured their first foot-hold on the shores of Lanka, every district and every province had its public school and its college, but these institutions were, as a rule, under the supervision and control of the priesthood—staid sober old dons who would have as much tolerated any manifestations of spirit, pluck, or mischief, as the violation of any of the “five precepts.” It necessarily followed that under such a system of scholastic discipline, the alumni of these colleges could indulge in no kind of exercise more violent than the composition of learned essays on the recondite subject of the Buddhist metempsychosis, or the less elevating if more tiresome task of manufacturing diagram poetry. The later Kings,

whatever may have been the extent of their acquirements in the arts and sciences, set but little store on the physical development of muscle and sinew, and though they may occasionally condescend to go out a hawking, or to treat themselves and their Court to the spectacle of a cock-pit, or a bull, or rather buffaloe fight, the gymnasium was an institution as utterly unknown to their Majesties of Kandy as it was to their predecessors of Anurajepoorā and Polannaruwe. After the sceptre of Lanka had departed from the Royal line who had wielded it for more than twenty-two centuries* and the Malabar dynasty succeeded to the throne of Kandy, whatever of spirit the nation had possessed was utterly crushed out, while the maritime provinces which had passed under the iron rule of the Portuguese and the Dutch, were so completely denationalized, that it is only within the last quarter of a century that the natives of this island have begun to realize under the benignant sway of Britain, the high privileges of British subjects. Enjoying as they now do, the blessings of civil and religious liberty in a degree to which many of the oldest States of civilized Europe have hardly attained, the national character of the Singhalese is being silently but surely moulded into habits of independence and self reliance; while every step made in advance, draws closer those ties of loyalty to the British throne, for which they are so eminently distinguished. The impulse given towards progress, moral, social, and material, by the example of the ruling race, may take many years to fructify, and though even some of the vices of European civilization may

* Sovereigns of the "Great Dynasty" reigned from B. C. 543 to A. D. 302; those of the "Lower Dynasty" from A. D. 802 to 1706.

leave their taint on the national character, the good will yet so far counterbalance the evil, that, with the generous influences already at work, with the agency of a higher and nobler education in operation, and the principles of a purer Religion permeating the masses, the day if distant, will yet dawn when every village will have its school-house and its own play-ground, and the village green resound with the chants and merriment of a future generation of Singhalese Youths assembled in the generous rivalry of those athletic sports, which if they had ever existed at all, have very nearly died out, or re-echo to the sound of bat and ball when cricket shall have displaced their own "*Buhu Kellya*". Then, if there is any truth in the saying, "The child is father of the man", shall the Singhalese Youth begin to give promise of a more vigorous manhood than can be predicated of the present generation. But to return from this digression.

The Sports and Games of the Singhalese may be classed under four heads. 1st Religious Games, 2nd Outdoor sports, 3rd Games of skill, and 4th Games of chance. It may however, be necessary to mention here that, with but a few exceptions, all the games and sports of the Singhalese appear to have been borrowed from India, and even from the Portuguese, the Dutch, and the English.

Among the Religious Games the first is the *Ang-Ediema* (අඟේදිම) or the "Pulling of horns," the idea of the merry-thought of European superstition developed on a gigantic scale. It is not a game in celebration of a victory, nor in commemoration of any great national event, like the games of classic Greece and Rome, but rather in

propitiation of some offended diety; and whether sickness has visited the people, murrain attacked the cattle, insects and grubs settled on the young rice fields, or a protracted drought threatened calamity to man and beast, the alarmed Singhalese peasant knows of no more efficacious remedy than an appeal to *Vishnu* or *Siva*, *Pattiny deyo*, *Kateregam deyo*, or *Basnaire deyo*, through the medium of an *Ang-Ediema*. The village elders, as soon as they awake to a sense of the impending danger, wait in solemn deputation on the *Kapurale* or priest of the district *Kowile* or temple, carrying presents with them for the seer, very much after the manner of Saul when he waited on Samuel, to learn the name of the particular deity that ought to be appeased, and generally to concert measures for the due and proper celebration of the Games. The *Kapuralle* promises to obtain the desired information, but as this must be done at a lucky hour, on an auspicious day, and after sundry ablutions and purifications, he dismisses his visitors with a promise to communicate with them on a subsequent day. He next proceeds to consult the Oracle, and fixes upon a day for the celebration of the Game, taking care however, that it should be sufficiently removed to allow of the real crisis of the danger to be passed. The day fixed upon is communicated to the elders who invite the villagers interested, by distribution of betel leaves; and preparations for the celebration commence in earnest. The villagers next divide into two parties or teams, the upper and the lower. This distinction is merely topographical, the villages lying towards the head of a valley or stream being the upper, and those further down being the lower. Each party next chooses its Captain or Cham-

pion, who brings with him the stout branch of an elk horn with the frontlet stang on. This horn is held in proportionate veneration according to the number of victories it may have achieved, and there are some handed down from father to son—for the championship is hereditary—that have come

“ O'er a' the ills o' life victorious,”

for a hundred years. The place appropriated for the game is called the *Angpitya*, an open place, in some central situation, and generally under the shade of an overspreading Bo tree, thus making the tree sacred to Buddha participate in a purely Hindoo ceremony. At one end of the *Angpitya*

“ Stands there a stump six feet high, the ruins of a tree,

“ Yet unrotted by rain and tempests' force.”

The stump selected is generally that of a cocoanut tree put loosely into a deep hole, with the root end up; and is called the *Henekande* or thunderbolt. A hole large enough for a man's arm to pass, is cut or burnt through this upper end. The respective teams are now ready with stout ropes made of buffaloe hide and strong jungle creepers, when the Kapurale opens the game, proclaiming like Pelides at the funeral pyre of Patroclus.

“ Come ye that list this prize to win, and ye this bout decide.”

The men of the upper team now pass a stout buffaloe-hide rope through the hole in the *Henekande* and firmly make fast to its end the elk horn of their champion. The horn of the lower team is similarly got ready and tied to the nearest tree; the *Henekande* is now leaned forward and the two champions hook the horns one into

* The Iliad. Merivale's translation. Book XXIII.

But what is curious about this stump is, that in the Singhalese Game it is always from a tree struck by lightning.





the other, and lash them together with cords. The two champions grasp the horns in their hands to prevent their turning or slipping, and the word is given to pull. Both teams now unite and haul at the rope passed through the *Henekande*, while some half a dozen men of both parties lay hold of the *Henekande* and sway it up and down, as the rope in the hands of the pullers is tightened or relaxed. The two champions hold on to the horns like grim death, and are swayed hither and thither with every motion of the rope. The contest lasts for hours, the snapping of a rope only serving to prolong it with a fresh splice, until one of the horns yields, and the pullers go rolling and sprawling on the ground.* All the time the mighty tug has been going on, the *Kapurale* is engaged at a small booth constructed of white ola's under the Bo tree, chanting the sacred hymns appropriate to the occasion, jingling the *Halemba* or consecrated armlets, and burning incense to the accompaniment of Tom-tom, fife, and cymbal. After the contest has been decided the whole assembly go in procession through the villages that participated in the ceremony, the *Kapurale* leading with a chant, the champion carrying the victorious horn in a basket on his hand, and every one joining in the *Hoyia* chorus at the proper stops. By the time the procession returns to the ground, a feast consisting of rice boiled in Cocoanut milk, vegetable curries (for flesh of any kind is forbidden) *tire* and honey is laid out on green plantain

* In this as well as in the striking of cocoanuts, it is considered a bad omen should the horn, or cocoanut of the upper team break. Such an accident is looked upon as the consequence of the continued displeasure of the offended deity. Hence it is not unusual to concede the victory, to the upper team by opposing a weaker horn.

leaves. The feasting over, they all rise at a sign from the Kapurale, and give one united shout of *Hoyia*, and then disperse. The *Kapurale* receives the customary presents, and the victorious elk horn is again laid up in lavender—if a liberal sprinkling of oil of resin may be so called, until some other threatened danger brings it out.

Another religious game also got up under similar circumstances as the one already described, is called *Polgehume* (පොල්හුම) or striking of cocoanuts. The villagers who join in the game divide into upper and lower teams, and after selecting each its Captain, proceed to the usual place of meeting, each individual carrying a number of husked cocoanuts. A line is then measured off generally, about thirty feet, and stations marked at each end for the Captains. The *Kapurale* commences his invocations, rosin burnt, tom-toms beaten and Cymbals struck, and the Captain of the upper team gives the challenge by pitching a cocoanut at his opponent, who stands ready to meet it with another held in his hand. The great art in throwing the cocoanut is to send it straight, and with the stalk or eyed end foremost, as that being the hardest part of the shell is better calculated to resist the impact against the one held in the opponent's hand. Should the cocoanut thrown be broken, the sender repeats the throw until the cocoanut held in his antagonist's hand is broken when he becomes the thrower in turn. This game goes on until some hundreds of cocoanuts are smashed on either side and the stock of one party is exhausted, when the other is declared winner. The cocoanuts used, are called *Porepol* or "fighting cocoanuts" and are chosen for the extreme thickness of their shells, which



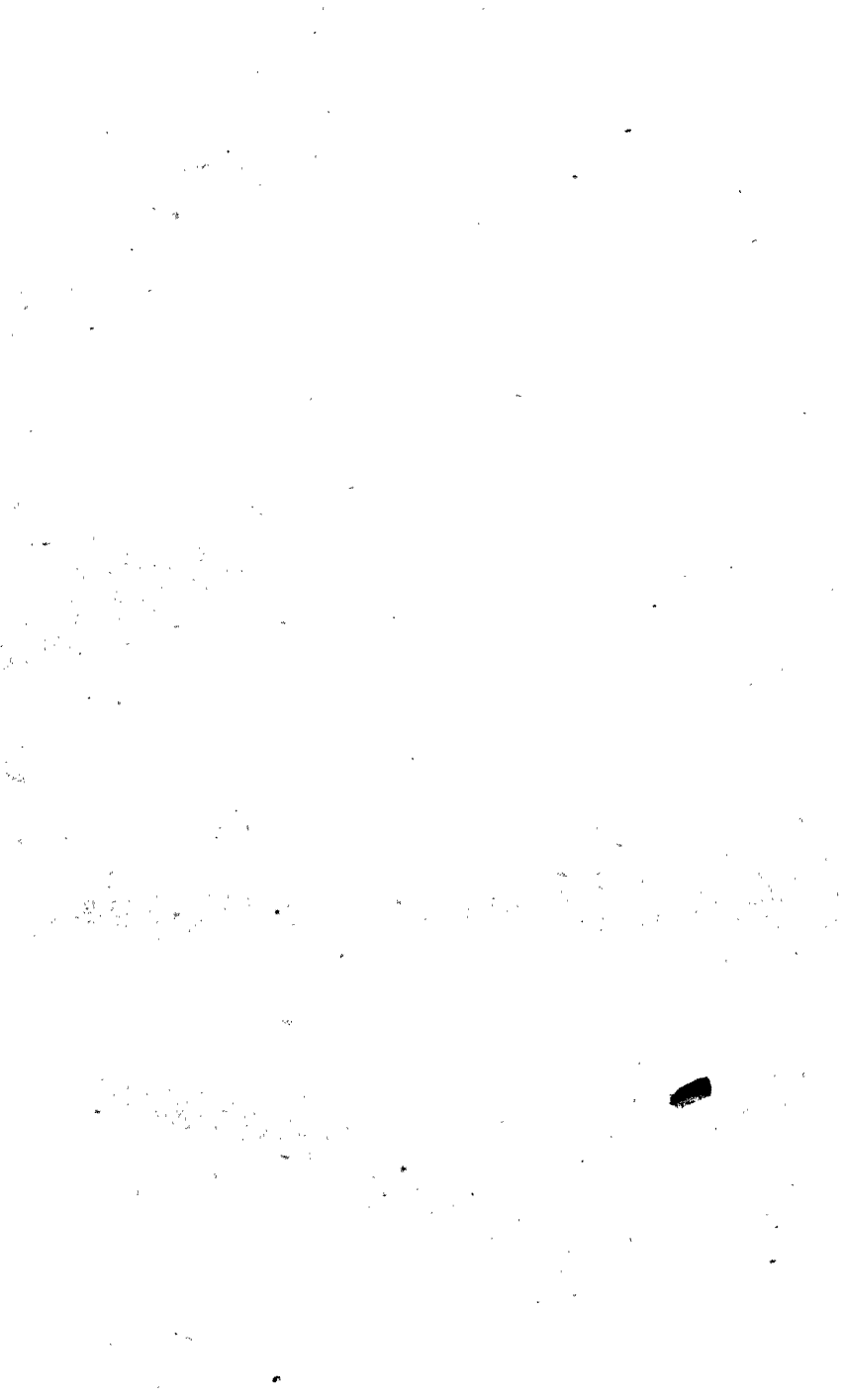


in some cases have been known to exceed a quarter of an inch, and as much as 15 Rupees have been paid for a single nut of this kind from well-known favorite trees. While the game is going on, the broken nuts are gathered, and rasped down and boiled into oil for lighting the ground during the banquet, which, as in the previous game, takes place on the return of the procession through the villages. The feasting over, the assembled people disperse after the prescribed *Hoyia*.

It is the belief of the Singhalese peasantry that both these games "are very efficacious" in expelling sickness and pestilence, and even in bringing down rain; and the popular faith is not a little confirmed by the astute *Kapurale* fixing the games at the tail end of an epidemic, or when unmistakable indications of a change of weather inspire him with sufficient confidence in his own powers of forecasting the future. In conclusion, it may be remarked, that both these games appear to have been introduced from India, probably with the accession of the Malabar Princes to the throne of Kandy.

Among the out-door sports of the Singhalese, *Buhukelya* (බුහුකෙලි) or throwing the ball, takes rank first, both on account of the enthusiasm with which it is played, and the skill and energy it calls forth. It is also perhaps, the only purely indigenous Singhalese game. It is usually played just before and immediately after the Singhalese New Year, and the season of festivity and enjoyment extends over a fortnight in prosperous years. The play-ground is an open place, where the boys, and not unfrequently the young men, of the village assemble, and after choosing

Captains, divide into two teams, each under its own leader. The players on either side count the same number and the innings is decided by mutual consent, or tossing up a brick or a pebble. When the parties have ranged themselves on either side, two cocoanut shells with the husks on, are placed on end three or four inches apart, with a piece of stick on them forming a bridge. This may be considered the wicket. The ball used is an unripe *Pommelow* rendered soft and elastic by being put under hot ashes, and protected against the rough usage it has to encounter by a closely plaited envelope of strips of bark. The in players who hold the ball, now retire to an agreed upon distance, usually about twenty or thirty yards, while of the other team some take their stand behind the bridge or wicket, and others disperse themselves over the ground as fielders. The game commences with the captain of the first team bowling, his object being to knock over the bridge while that of the other party is to catch the ball as it bounds along past the wicket. If the bowler knocks the bridge over, one of the opposite team goes out, while if the ball is caught, the bowler goes out. The ball must be caught while it is on the bound, at least above the height of the knee. The ball, whether caught or not, having passed into the ground of the second team, one of them becomes the bowler, and the game goes on alternating between the two sides, until one team has all gone out, and the game is won by the other still on the ground. The winners celebrate their victory with song and joke, quip and crank, jeer and jibe, and in the unbounded license of their exultation, show nothing like consideration for the feelings of their vanquished opponents. The apparent spirit of vindictiveness,





CRICKET.

Fig. 1. Bowling.



Fig. 2. Batting.

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the almost malicious delight with which the usual old songs are sung, or new ones improvised by the Captain of the winners, and the perfect stoicism and callous indifference with which the humiliation of defeat and the degradation of his position are submitted to by the loser, is the most remarkable, though certainly the least attractive, feature of this game, and can hardly fail to merit the unqualified condemnation of men whose ideas of victory are associated with generosity towards a fallen foe. The songs alluded to, not unusually degenerate into coarse ribaldry and filthy obscenity, but how cruelly humiliating soever they may be, the victim of defeat has to sit on the bridge of cocoanut shells, which in this case has become a veritable bridge of sighs, his head bowed down on his knees, and submit with patient resignation to the sneers and jibes of the victors, who, while they dance round him in savage exultation, emphasize a more than ordinarily biting sarcasm with a knock on his head.

The following specimens of comparatively mild vituperation, may serve to convey an idea of the wild latitude of abuse, which the winners feel privileged to exercise.

Hurrah ! hurrah ! we have won, hurrah !

Hurrah ! hurrah ! exult over this fellow

Fellows ! let us give him a name, call him *Rakossa*

Fellows let us give him a name, call him *Ugudurwa*.

Fetch the conquering hero and seat him on his head,

Knock him on the head one, two, three and drive him away,

His head is hollow, crows have hatched their young there,

His mouth is foul, he has eaten *Amu* and *madu* leaves

From the *Dolowewe* Tom-tom-beater's garden

Did he not once steal cocoanuts,

And did he not and his fellows get a thrashing ?

There is no evil in his head from this day

(accompaniment of knocks)

There is no trusting earth and water, you dog !

Were your antecedents known, not even *Olyas* would beg of you

One after another we are come to-day to sing,

Go, go, hence away, you vagabond dog.*

Another game, a favorite with small boys is *Kally Kelya* resembling very much the Tip-cat of the English play ground—that it was however, not borrowed from the English, is tolerably certain from the fact of its having been known long before the British period. Any number may play this game, but the sides must be numerically of the same strength. The implements of the game are a stick about eighteen inches long, called the “striker” and a smaller piece of about three or four inches like the “cat” in the English game of Tip-cat”. A small hole sloping down at one end of about three inches by one, is made in the ground, near which one of the in-players takes his stand. A line the length of the tallest boy from feet to tip of fingers, is then marked off on the further side, where a boy of the opposite side takes his stand with the “cat” in his hand. He cries out “play” and on being answered “ready”, throws the “cat”, trying to put it in the hole. The boy with the “striker” watches his opportunity to strike, which if he succeeds in doing, the distance to which the “cat” may have been carried,

* Calculated as these taunts are to exasperate the losing party, they have seldom led to quarrels and fights. Indeed the writer has been assured that they never created “bad blood”—an assurance which he however regrets to state was contradicted by disclosures made at the Matura Criminal Session for 1871, when the provocation to a murder was traced to this game of *Buhukelya*.

is measured with the "striker," ten, fifteen or any number of lengths previously agreed upon counting for game, and throwing out a player on the other side. Should the "cat" drop into the hole, or within one length of the striker, or be caught when struck, the in-player goes out and the player who had the "cat" succeeds him. After one whole set of players have been outed, the winners enforce a penalty in the following manner: the "striker" is thrown about six feet away from the hole, and struck with the cat, the loser tries to catch the cat and if he succeeds he escapes the penalty, if not the player takes up the striker and going up to where the "cat" may be, throws the striker from him as before, and strikes it. This goes on until he fails to hit the "striker", or it falling within reach of the loser (who must take it up stretched on the ground) is taken up by him. From this point the loser has to run back holding his breath and crying "goodo", "goodo", "goodo", to the hole where the game commenced. Should he give in, the throwing of the "striker" and the striking with the cat, is resumed from that place.*

Ettan Kally (එත්තකල්ල) which is exactly the same as the "Tip-cat" of the English play ground, is played with a striker" eighteen inches long, and a "cat" or piece of wood four inches long and pointed at each end; a hole as in the previous game, is the starting point, and the "cat" being laid lengthwise in the hole, the projecting

* I have looked in vain into all the "Boys' Own Books" available for an English game bearing any resemblance to this. Mr. Robert Dawson tells me that he saw it played in the North of England by some Norwegian boys, exactly in the same manner as above described.

end is tipped with the striker, and as it leaps up is struck away to a distance. The distance from the hole is then measured with the striker, and the cat again tipped and struck until the agreed upon score or number of lengths is made, when the winner exacts the same penalty as in the previous game. Should the cat be caught when struck, or fall within a distance that can be reached by the loser lying stretched on the ground on his stomach, with his feet on the point last attained by the player, the player goes out, but he is entitled to exact so much of the penalty as remains due between that point and the hole.

Walekadju. "Cashew-nut hole" is a favorite game with boys when cashews are in season. It is played very much in the same way as "Tip shares" or "Handers.* A hole about three or four inches wide, and as many deep, is made in the ground, and an offing seven or eight feet away is marked. The players then retire to three times that distance, and quoit a *batta* towards the hole. The player that gets into the hole or nearest to it has the right to begin, the others following in the order of proximity. The order of succession being thus determined, the boy who has the right to begin takes up the cashew nuts in the hole and from the offing station, pitches them back into the hole. Should an even number get in, he takes them all, but should it be odd, one cashew is thrown to him by the next player, and he has to pitch it back into the hole, which if he succeeds in doing, he takes all in the hole, but failing is out. Should he have holed an even

* See Routledge and Son's "Every Boy's Book," p. 65.

number, or succeeded in putting back the odd one, the next player calls upon him to strike with his *batta* any cashew he points out on the ground. If he succeeds in this he has won the game, but if in striking he holes his *batta*, or strikes any other cashew nut than the one pointed out, he goes out and is succeeded by the next player. This game is also played with "*Battas*", "*Kumburuetta*", and sometimes also with "copper challies."

Walenameya (වලනමය) or nine holes, is played with the bean called *Kumburuetta*,* any number may play it. Nine holes in three rows of three each, about six inches apart are made in the ground, and bounded on three sides by banks of earth, or pieces of stick, each player puts into a hole as many beans as there are players. An offing or boundary fifteen or twenty feet away, is marked off, from which each player bowls or rather shoots a bean into the holes. Should this bean fall into the centre hole, the player is winner and takes the beans in all the holes, should it fall into any other hole he takes only the beans in that hole. Should a player send his bean into a hole already emptied he forfeits the original number, which must be put back into that hole.

Kundubatu (කුඳුබඳු) played with the bean *Pusbatu*,† is a favorite game with smaller boys, and takes very much the same place in the Singhalese play ground which marbles do in the English. The beans selected are round small ones, artificially flattened by the application of heat and pressure. Two holes about fifteen feet apart,

* *Gulianina bonduc.*

† *Entada pursaetha.*

are made in the ground, and a fair-way smoothed between them in a straight line. The players now take their stand, and shoot their *Battas* into the opposite hole. The shooting is performed by holding the *Batta* between the fingers of the left hand, resting the thumb of the right on the ground, and using the middle finger of the right as a spring. The player who succeeds in holing his *Batta* goes out as winner, while the others continue the play, the player furthest from the hole taking precedence. He shoots at the nearest *Batta* on the ground, gathers them all up and putting all but two into the hole, places one at its edge and with the other shoots at it. The owner of this *Batta* then shoots at the nearest *Batta*, and should he strike one and get into the hole, he goes out as winner; but should he only strike, he is entitled to play upon all the others gradually lessening the circle until he can himself get into the hole, when he stands out. The others then go on repeating the play, the one nearest the hole beginning, until only one is left, who is the loser, and has to hop on one leg from one hole to the other. The number of times he has to hop for each defeat is determined, by the first player placing a *batta* at one hole and shooting at it from the other, and if he succeeds in hitting he exacts seven runs, should the second player also succeed in hitting a *Batta* in the same manner, he is entitled to fourteen runs, and so on, increasing by as many sevens as there are winners.

Ira Batu (ඉරබටු) or Line "*Battu*". This is played very much in the same manner as the *Kundubattu*, the difference being that, instead of holes, a circle of about six inches is drawn on the ground, with a line through the

centre. From a boundary or offing thirty feet away, the players shoot for innings, the nearest the centre of the circle taking precedence, and the others following in the order of proximity. The *batta* of the last is placed upright in the centre of the circle, and the first player shoots at it from the outside of the circle, and then at the nearest on the ground, and so on until he can come back into the circle, after having scattered the other players far apart. If he succeed in this he retires the winner. The other players continue the game in the order of their innings, until one is left last, who, as the loser, has to pay the same forfeit as in the previous game.

Among the games recently taken to by the Singhalese and generally played in the towns, may be mentioned Hop Scotch,* Prisoner's base, and marbles which are all played on the same rules as the English games.

Among the games of skill or, rather scientific games, though the Singhalese may have in ancient times had a knowledge of Chess, they have not even a popular name for it now, it being known to the learned only by its Sanscrit name of *Chaturange*. Games, however, much on the same principle as draughts are not uncommon, and while the *Hatdiriyān* or "Seven Leopards" may be taken as the simplest, the *Kotu Ellime* or "Taking of the Castles" may be considered the most elaborate. The former is played with seven pieces representing the leopards, and one representing the tiger. The moves are made in a triangular diagram with one perpendicular line in the middle

* Mr. Jas. d' Alwis tells me that he has seen this or a game very much like it, described in an ancient Pali Buddhistical work. It is now known among Singhalese boys by the names of *Masop* and *Tatto*, indifferently, but both these terms would seem to be of Tamil origin.

and two cross lines at right angles to it. † The player or the tiger lays down his piece first, and as the apex of the triangle is the most advantageous, chooses that. The other player then lays down a piece when the tiger makes a move. Until all the seven pieces are laid, there is very little chance, if skilfully played, of taking a piece or checking the tiger. When all the pieces are laid, the moves go on with greater deliberation until either the tiger is checked, or the greater number of leopards being taken, all hopes of checking the former is lost; when the game ends.

The "Taking of the Castles" is played exactly the same as draughts, each player taking one diagonal half of the board, which is a square with a reversed triangle in the middle of each side, and forty-nine intersections‡ in all. The counters are of different colors, generally coffee beans and Indian corn seeds. Each player lays down his twenty-four pieces, covering all the points and intersections with the exception of the middle one. The first move made into this point is a sacrifice, for the piece is immediately taken by his opponent, and so the game proceeds until one party is entirely checked or has all his pieces taken.

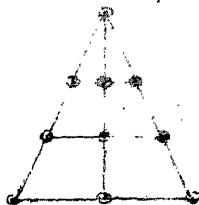
Niranchy§ which is the same as "Nine men's morrice", is a very common game, played by both young and old, in the intervals of business. The game is won when a player succeeds in laying down three pieces in a line, while the object of the opponent is to prevent this by giving check. Should the game not have been decided by the time one of the players has laid down his twelve men, the game proceeds by moves.

† See Diagram A.

‡ See Diagram B.

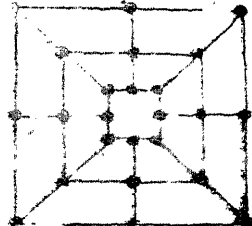
§ See Diagram C.

A. *Hac-tiviyani.*



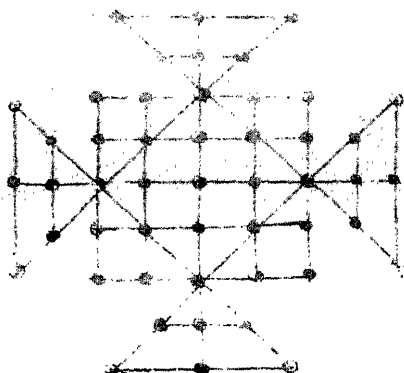
Naranchy.

C.



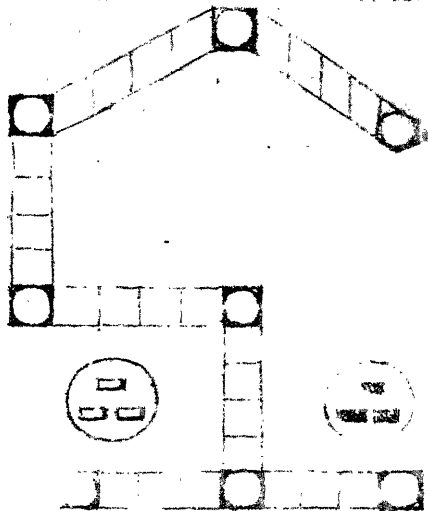
B.

no-tu-bi-lu-na.



D.

Pincé.





A very favorite game among the women, played with cowries, is called *Panchy*, and from the Tamil terms employed would seem to have been introduced from the Malabar Coast. Any number may play, but they must divide equally into two sides. The right to begin is decided by one taking up the cowries, which are six in number, and calling out odd or even when the cowries are thrown down, and if an even number turns up the evens have it, and if odd then the odds. The progress of the game is marked by counters called "dogs," three on each side, on a diagram.* The first player takes up the cowries and shaking them in the hand throws them down. Should all six turn up on their backs which is called "Panchy by six", or five, "Panchy by five," or one, called the "ace," the player has won his innings and is in the game, and has the right to move and score. If the throw was what for convenience we would call a sixer, the player places one counter in the third house counting from his side of the bottom horizontal row. A player throwing a sixer, fiver, or ace repeats the throw until three, four or two or a blank turns up. A blank is when all the six cowries fall on their face and counts nothing. After the first sixer, fiver, or ace, has been made the twos, threes, and fours count. The players on each side play alternately. So long as the play is on the first horizontal bar of the diagram, no taking of an opponent is allowed, nor could a piece at the corner houses or last house be taken, When one player throws the same number as that of a house already occupied, the latter is taken. A piece once taken can only re-enter the board at the first

* See Diagram D.

house. The game is won by the party whose pieces by regular progression, go out of the board at the last house. The losers are bound to give the winners a treat called *merende*. The cowries used in the game are usually loaded. When a piece gets into the thirtieth house it is in the same danger as the ninth hole in whist, and can only go out by the throw of an ace, or fiver, or sixer, and not unfrequently the player who has got thus far, is outstripped by the other who may have recommenced from the first.

Another favorite game with women, especially young girls is called *Pettikit tan*. It is played with Cashew nuts, or more commonly small stones or pebbles, six or seven to each player being the usual number. Any number of players can join in the game. Each player shakes up his pebbles in the hollow of his right hand, and throws them up, gently trying to keep them as much together as possible, and are caught as they descend on the back of the hand. The player who so catches all, or most of the stones has the right to begin, the others following in order according to the number they have caught. Should two have the same number, the tie is decided by throwing again. After the order of the player has been thus settled, the first player gathers up all the stones and throws them up as before, catching as many as she can on the back of her hand, but if it happen to be too many she may drop some of them. She next throws these up again and if she catch them all, she takes one stone towards game. The next thing is to throw up one stone, pick up one or more on the ground, and catch the stone thrown up as it comes down. If in this manner she succeeds in clearing the ground she counts another stone towards

game, and begins a-fresh. If when she throws up the stones and catches them on the back of her hand, it be only one, any player may strike it off, and she is out. Should she also in picking up the stones on the ground, touch a stone and fail to pick it up, or leave only one stone the last on the ground, or fail to catch the stone thrown up, she is out. When the play is over, the winners are entitled to give the losers as many raps as there were stones won.

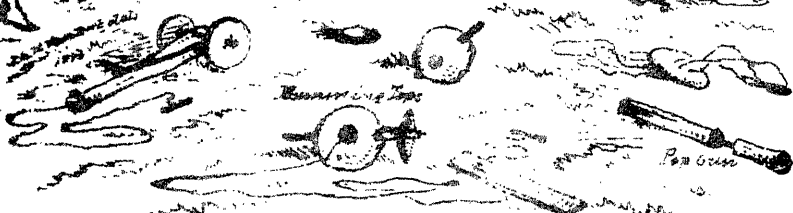
Irrata Kelya. This game is usually played with "Iekels" (pieces of the mid-rib of the cocoanut leaf about 4 inches long) of which each player has from six to twelve, as agreed upon. The order of play is decided as in the previous game, each player tossing up her "Iekels," in a bundle and catching them on the back of her hand. This settled, the player that has the right to begin, gathers up all the "Iekels," and shaking them in her hand drops them on the ground in a heap, and with a hook also of "Iekel," of which each player is provided with one, proceeds to remove them Iekel by Iekel at a time, taking care not to disturb or shake those in the heap, which if she does she is out, and the play passes to the next in order. The players who at the end of the game have taken more "Iekels" than what they brought to the game, are winners by so many, and claim the agreed-upon penalty. A game very much like this called "Spelicans" is described in "Every Boy's Book" published by Routledge & Sons.

Madinchy or Ottey Irrathey, "Odd or Even"; this is also a common and favorite game among women during the Cashew season. A number of women sit in a circle on the ground each with a heap of cashew nuts beside her. One

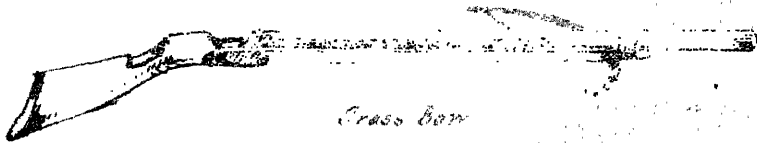
player takes up a number of cashews in her hand and holding them close covered cries *Ottey Iratley*. If the next player guesses *odd* or *even* right, she wins the cashew nuts held in the other's hand, if wrong she loses and has to pay that number to the winner, and the play proceeds in regular order. Sometimes a whole heap of cashew nuts is staked, the player who guesses right taking all, or paying back a similar number if she guesses wrong.

Among the games of chance, cards and dice occupy but too lamentably a conspicuous place. All the games played with cards are of European origin, the commonest being "*Thirty one*" played on nearly the same rules as "*Vingt-un*". Another very common game is called "*Ajuda*" (Portuguese for *help*), and was probably borrowed from them, or perhaps introduced and popularised by the Dutch, judging from the names of the cards themselves. The ace is called *Asya* (*aas*) the king *Heera* (*heer*). The Queen, *Porowe* (*Vrouw*) and the Jack, *Booruwa*, (*Boor*) all Dutch terms. Four, five, or six can play. Each player has eight cards dealt him and if the person entitled to begin is flush, and can count upon making five or more tricks by himself, he calls out *Solo*, meaning that he elects to dispense with *Juda* and play alone. He names trumps. The other players in such a case are opposed to him and make common cause among themselves. Should he have any doubts of success, he calls out for "*Juda*" which any player having two or more aces, or one ace and two kings supported by smaller cards of the same suit, is bound to give. Between the two they are expected to make five tricks. The player next to the right of the dealer leads and is entitled to call out *Solo* or *Juda* first, the other players taking precedence





Pellet Bow



Grass Bow

according to deal. The deal is from right to left. Should the first player call out *Solo* and another player also have "Solo" consisting of a sequence of *Spades*, that player has the preference. Should a player playing *Solo*, or two players by *Juda*, make only four tricks, it is called a *Rapoor*; should they make only three it is called a *Kudjito*. In *Rapoor* the stakes are not paid immediately, but go to the winners of the next hand; in *kudjito*, they are paid at once. The first *rapoor* pays seven, and should the same player be *rapoor* in the succeeding hand which is called a "double rapoor" he pays fourteen, should he become *rapoor* a third time he pays twenty-one and the game ends; should he become *kudjito* over one *rapoor* he pays fourteen, over two, twenty-one when also the game ends. A *kudjito* pays only seven. If it be a *rapoor* or *kudjito* by *juda*, the person giving *juda* pays only one, if he had made two tricks, if not he pays three, and the other four.

Of toys the Singhalese have hardly any.

The Top, at least the Peg Top, they owe to their European masters, though the name *Bambere*, a purely Singhalese word, would seem to point to a native origin. The Humming top called the *andana* (crying) *bambere* is made of the wood-apple emptied of its core through a hole in the side. Two holes opposite each other at top and bottom are next made and a peg five or six inches long is fastened through them, the upper end of the peg protruding an inch or so out to which any little ornament may be attached. A string is next wound round the peg from bottom to top, and the end passed through a small hole in a piece of wood called the "key." The Top is spun by holding this "key" firmly against the peg, and steadily pulling the string out.

The *Natchambowe* or Pea-shooter may be said to be a very ancient Singhalese toy, and considering the universality of the Bamboo throughout the Island, it could hardly fail to suggest the idea of the pea-shooter. A straight joint of bamboo and clay pellets complete the apparatus.

The *Epele towakkowe* or Pop-gun also no doubt suggested by the bamboo, is also a very ancient and very common toy. A joint of bamboo eight or ten inches long, has a rammer, shorter by the size of one pellet, with a handle fixed to it. The pellet used is the fruit of the *epela* or *kirilla* tree or the flower of the Jambou. The pellets should fit the bore tight, to make a loud pop.

Roongpetta, answering in every respect to the English "Cut water," is made out of the flat circular piece of coconut shell with its edge notched like a saw, and two small holes about an inch part in the middle. A string is passed through these holes and the two ends tied together, and to set in motion, the double string has to be alternately pulled and slackened.

The Bow of which several varieties are known to the Singhalese though it once held a high place in the Royal armoury, now only takes rank with the toys. The *Gal-donne*, from which small pebbles or pellets of dried clay are shot is the favourite. It is made of some tough elastic wood and has a double string passing over two small cross pieces let into the ends. At the middle of the strings there is a small lacing of cords in which the pebble or pellet is placed. The bow is held in the left hand, and the string with the pellet pulled back with the right with a slight side twist to prevent the pellet when shot, catching the bow or

other hand of the shooter, which not uncommonly happens with the inexperienced.

The *Yaturu dunne* or Cross-bow is another variety. The bow is passed through a stock which has a trigger attached to it, a groove is made along the middle towards the top, for the arrow, or pellet that may be used. The bow after being bent, the string is caught in the trigger, and the arrow laid on the groove against the string is discharged by pulling the trigger. Instead of the groove along the stock, a bamboo with two slits on each side for the string is used. In this case the bamboo acts like a gun barrel and greater accuracy of aim obtained.

The *Watura wedille* or Water gun is a squirt made of a straight bamboo joint with one or more small holes at the closed end, a ramrod with some tow or cloth tightly wrapped round at one end acting like the piston of a pump:

"*Borupaa*," "False-feet" or Stilts, though no doubt known to the Singhalese from very ancient times, are not in common use, except on occasions of religious processions, when numbers of boys and even grown up men can be seen performing wonderful feats of locomotion on them.

"The Sling", *Galpatya*, though sometimes used does not appear to have been known to the Singhalese in its character of a weapon. Perhaps the first time they gained an idea of the Sling was when reading the account of the encounter between David and Goliath, a supposition not a little strengthened by the name "*Galpatya*," a modern compound word into which the word "Sling" has been rendered by the Translators of the Bible.

Note.—Almost all the games described in this paper are common to the Southern Province.

On Miracles, by J. D'ALWIS, M. R. A. S.

The truth or error of a novel religious system is a matter of such perplexing uncertainty, that the inquiring mind is never inclined to accept new doctrines without a sign of 'miraculous power' on the part of the propounder. "Except ye see signs and wonders, ye will not believe," said a great Teacher. Indeed there never was a teacher of a new religion, from whom his hearers did not claim the performance of *Miracles* as an evidence of truth. Moses complained that the children of Israel did not believe him, nor hearken unto his voice, until he gave them a 'sign' by the performance of miracles. So when Gotama proclaimed his supremacy by exclaiming *settho h'amasma lokassa* 'I am the greatest in the world'—it is probable that the people sought for a 'sign,' especially as the Tirthakas, who arose in opposition, exhibited powers which seemed supernatural. Indeed it is stated that Kevatta suggested to Gotama the necessity of working miracles to satisfy the incredulous.* The Kevatta Sutta, which we give at length in the Appendix, leads us to the belief that the supremacy which he claimed was regarded by Gotama solely in a moral and intellectual point of view.

* It is indeed recorded that Gotama, anticipating this desire on the part of the people, explained, in his first discourse, that his supremacy consisted in his achievement of supernatural knowledge. See explanation in the Vinaya, quoted in the Descriptive Catalogue, vol. ii, p. 6.

More of this hereafter. In the meantime, it may be inquired if Gotama possessed the power of working miracles?

The possession of such a power is, as we shall explain opposed to the first principles of Buddhism. "None of the miracles with which the old histories are filled," says Renan, "took place under scientific conditions. Observation, which has never once been falsified, teaches us that miracles never happen but in times and countries in which they are believed, and before persons disposed to believe them. No miracle ever occurred in the presence of men capable of testing its miraculous character. Neither common people nor men of the world are able to do this. It requires great precautions and long habits of scientific research. In our days, have we not seen almost all respectable people dupes of the grossest frauds, or of puerile illusions? Marvellous facts, attested by the whole population of small towns, have, thanks to a severer scrutiny, been exploded.* If it is proved that no contemporary miracle will bear inquiry, is it not probable that the miracles of the past, which have all been performed in popular gatherings, would equally present their share of illusion, if it were possible to criticise them in detail? It is not, then, in the name of this or that philosophy, but in the name of universal experience, that we banish miracles from history. We do not say, 'Miracles are impossible.' We say 'up to this time a miracle has never been proved.'"

Miracles, like many other matters of History and Physiology, may not admit of positive proof, and may there-

* "See the Gazette des Tribunaux, 10th September and 11th November, 1851, 28th May, 1857"—*Renan's Life of Jesus*, p. 29.

fore be generally open to doubt ; but there is one matter which the instincts of our nature prompt us, even without proof, to accept as a positive fact—and that is, the existence of an absolute almighty Creator of the universe ; and this belief unquestionably enables us to say positively, that Miracles are possible with a Being possessed of almighty power. Miracles, therefore, presuppose the existence of an Almighty Being, or an omnipotent power. They are either His act, or that of His accredited agent.

Now, it is quite clear that Buddhism acknowledges no such Being, nor the possession in any human being of a miraculous power, in the sense of an ability to work a supernatural act, proceeding from the mere order or wish of the performer, and affecting any other being. If Buddha and his sanctified disciples had, as it is stated, possessed *iddhi*, they could have, in seasons of famine, converted stones into rice ; and they would have had no occasion to go a begging. But we are expressly told, that, although he fasted for forty days during his profound meditation, Gotama required, at the expiration of that period, to satisfy the cravings of hunger ; and the requisite food was not created by him, but was given to him by some itinerant merchants. So likewise Buddha had no power to perform any other act by which he could miraculously contribute to his own personal comfort. Where, however, such an act was indispensable, the intervention of the gods is expressly stated.

We certainly read of wonderful acts slightly affecting other people than the party performing them, (*vide post*) ; but they are such as come within the category of cases expressly stated by Gotama in the *Kevatta Sutta*, in

which he describes the different kinds of *iddhipatihariya*. They are not such as may be pronounced to be altogether impossible, nor such as may not be explained by the presence of other causes than an inherent power of *iddhi* in the worker. But this at least is certain, that the possession of such a power cannot be reconciled with the doctrine of Buddhism, which declares a man to be a free agent, uncontrolled by any power except that of his own *kamma*. According to this doctrine, we find Gotama quite incapable of doing aught directly, and of his own power, for the temporal or spiritual benefit of his fellow beings. It is indeed expressly admitted, that Buddha could not save a being who was destined to hell. He could not vivify the body from which the spark of life had fled.* We read of no miraculous healing of the sick. In the age of Gotama, the people, including his disciples, suffered more from sickness than from other causes. The Vinaya exhibits the precautions taken by the priests in cases of sickness, and the attentions paid to the sick priests even by the Sovereign. The four *paccaya* included 'medicines.' Nearly every rule was relaxed in favor of the sick. But there is not a single instance on record where disease was healed by Gotama by any superhuman power. True it is that he visited the sick, *e. g.* Kassapa, who was grievously ill in his cave. But he did not bid him, "Rise, take up thy bowl, and walk." The patient was not healed by touching "the hem of his garment." He preached to him on the *Sattabhojjanga*;—Contemplation, Ascertainment of the truth, Perseverance, Contentment,

* See *Attanagaluvaṇsa*, p. clxiv.

Placidity, Tranquility, and Equanimity. He soothed his mind. He reduced the pain of the body by promoting, what modern medical treatment does not ignore, cheerfulness in the mind.

So, when priests suffered from the attacks of beings denominated Yakkhas, he did not drive them away. They were not expelled by his command. But he averted the danger by ordinary, legitimate, *human* means. He appealed to their own chief, Vesavanna. The latter, loyal to Gotama, and willing to redress the grievance, required a 'sign' to distinguish the true from the false ascetics of the age. That sign was furnished by the recital of the Attanatiya Sutta; and Gotama saved the afflicted, not by any iddhi, but by procuring an edict of the Yakkha-king, prohibiting the evil, and imposing a penalty for a breach of the command.*

Again, when the Vijjians suffered from drought, pestilence and famine, and the crimes consequent thereon, the alleviation of the general misery was not, as is supposed, owing to the recital of the Paritta, or Exorcism or the sprinkling of holy water by A'nanda; but the same may be traced to natural causes. For, even whilst Gotama was traversing eight miles to reach the afflicted city, the unfavorable weather had already commenced to change. Rain fell in abundance, purifying and cooling the atmosphere, clearing the country and removing the maladies which in times like the one under notice were usually attributed to demoniac influences. By-and-by, too, when the sage had repaired to Vesali, and the people had

* See Attanagaluvasa, p. cxlvii.

congregated together from different parts, their presence alone was a sufficient check to the evil-disposed; and we may easily believe that the latter either abandoned their mal-practices, or 'fled away' from a place where they could not any longer carry on their thievish propensities with impunity; and that the precautions, in a sanitary point of view, which the people were enabled to take, restored peace and health to their households.

Buddha, moreover, could not delegate his miraculous power. 'Every one for himself', seems to have been his motto. 'Self is the lord of self; who else could be the lord?'—was his undoubted doctrine.* Neither he nor any of his eminent disciples could ever set aside natural laws, so as thereby to affect another party. If, for instance, we read of Buddha, as of Abarus the Hyperborean, that he traversed on foot a large sheet of water,† we know for certainty that he could not by his command cause others to do the same. Though, like the Magicians of Egypt, Pilindavaccha was able to convert one substance into another, he could not cause 'the little girl' to do what he did,—'change a coil of rushes into a gold ornament.' A careful examination of all the wondrous deeds recorded in the Tepitaka,—indeed the very exemplification of them in the Kevatta Sutta given below, clearly proves them to have been myths, dumb-shows, or optical delusions.

Buddha it seems, clearly saw the impropriety of such frauds; and though it would not enter into the plan of a

* Dhammapada.

† Maha Vagga in the Vinaya Pitaka.

propagator of a new Religion expressly to disclaim the possession of iddhi; yet we have Gotama's own authority, as to two facts—1st, that 'all miraculous acts which he could work might be easily performed by Vija or Magic; and 2nd, that he abhorred, refrained from, and censured the working of Miracles;' vide Kevatta Sutta in the Appendix. So much did he set his face against it, that he not only considered the mere fraudulent representation of the possession of iddhi, or a super-human miraculous power, to amount to an offence as grave as murder, but he visited the offender with the same punishment that he assigned to that offence, and expelled him for ever from the priesthood.*

It may also be readily believed that the peculiarly practical mind of Gotama did not fail to perceive that, in the state of society in which he lived, and which was by no means inferior in the possession of Arts and Sciences,† to that in which the Magicians of Egypt practised wonders,—the working of 'miracles' led to no practical benefit. When therefore Moggallana, with an overweening confidence in his own prodigious capacity for working miracles, wishing to relieve the distress of his fellow-pupils consequent upon a terrible famine,—asked his Master's permission—not to convert stones into food, but to overturn the upper stratum of this globe so as to get at what is called its honied-substratum, the answer was simply—'Don't.' The fact, too, involved in the question by

* See Vinaya Pitaka, lib. 1.

† Arrian in his History of Alexander's Expedition, speaking of the Indians, says: 'They [Brahmans?] are the only *diviners* throughout all India; neither are any suffered to practise the art of *divination* except themselves, vol. ii. p. 204.

Gotama—‘ what would in that case become of the denizens of the earth?’—divests the proposed work of all miraculous power : and though it is stated that Moggallāna replied, ‘ that he would collect all the inhabitants of the earth into one of his hands, whilst with the other he would turn the earth over,’ Gotama knew perfectly well, that he had no such power. For, if he had, Gotama’s common-sense, of which his doctrines show he was not deficient, must have not only shewn that Sāriputta might have produced rice out of stones, but that the same mighty power, which could be exerted to turn the earth over, would enable him to save living beings from distress. And that such was Gotama’s opinion is pretty clearly implied in the reply with which this part of the dialogue concludes, and which the narrator in his innocence records—‘ Don’t ; it will cause much distress to the people.’ It is then reasonable to believe that Gotama not only abstained himself from working miracles, and forbade others to do so ; but did not believe in any supernatural power.

Buddhists may, however, refer us to an Admonition in the Vinaya,* or to the beginning of the Kevaṭṭa Sutta, and tell us that the prohibition was confined to exhibitions ‘ before the laity clad in white.’ The concluding words of the Sutta, viz., ‘ I abhor, refrain from, and censure miracles’—are certainly not open to such a construction. The words which we have quoted are not controlled by the words quoted against us. The absence here of the repetitions generally used in the Bauddha discourses, raises a suspicion in our minds, and renders it necessary

* We are obliged to omit the notes, and quotations for want of the necessary type.

to examine the genuineness of the qualifying words which only occur in the beginning of the Sutta. Miracles are intended, as Kevatta himself says, to infuse feelings of greater attachment into the minds of the people generally—not of the converted, but of the non-converted to Buddhism. House-holders too must have formed, and they did form, a far numerous body than Ascetics; and the Dhama was not, like the Vedas, designed for a privileged class. It was the property of all without distinction. The most earnest desire of its teacher was to add the greatest number to his ranks.

As regards the prohibition to ‘the laity clad in white’—we gather from the very Vinaya, that ‘All the Ascetics of the age, were not clad in raiment other than white.’ Svetambaras formed a very numerous class who wore *white*. The Digambaras wore neither white nor coloured clothes. We have no information as regards the dress of the Fire-worshippers of U’ruvelāya; and, although they were all of that faith, it does by no means follow that they were *Ascetics*, or—except their chief, whom we may admit to be their priest—that they were not in the strict sense of the word ‘laics’ or ‘house-holders.’

Again, kings, princes, and nobles wore rich garments of various colours. Why should miracles be worked to accelerate the conversion of such alone, to the exclusion of the ‘laity clad in white’? But it may be said that Buddha meant that miracles should be confined to *all Ascetics*, to the exclusion of the laity. Of course there is some warrant for this in the Pingola Bháradvája Sutta, where the prohibition against the performance of miracles is confined to the laity. Here too the words ‘dressed in white’ do not

occur. We have already seen the unreasonableness of the limitation to the yellow-robed priests, and the impropriety of the laity being excluded from the influence of miracles.

It is indeed unreasonable to believe that Gotama could have ever intended to confine his miracles to the priesthood, who were dressed in yellow, or to any other denomination of Ascetics. We think we may reject the words 'clad in white' as an addition of the compilers : and still we have the word 'laity' which also occurs in the Vinaya Lib : iii.

It has been suggested to us that the intention of Gotama to restrict the prohibition to the working of miracles before the laity, was shewn with sufficient clearness in the Pingola Bhāradvāja Sutta—that intention being 'to prevent his disciples from acquiring *pacayā*, or the necessities of life by the exhibition of miracles.' That intention, it will be observed, is not expressly stated. It may certainly be gathered from the legend ; but against the acceptance of such an intention there are several reasons. In the first place the express reason given in the Kevatta Sutta against Iddhi patihariya *generally*, is, that miracles which could be worked—and they are enumerated—were of a kind similar to wonderful acts of a Chirmachargist, and that therefore the populace might ascribe them to magic. This reason appears to enter into the very essence of the question, and is inconsistent with the belief that the prohibition had for its object the prevention of *abuse* of power. It establishes the absolute impropriety of the act. It admits of no exception. And if an exception were possible, the alleged exception in favour of the laity is cut from under the ground of the party alleging it; for it is quite clear that the

reason expressly assigned leaves no loop-hole for escape ; and to say, that although miracles might be ascribed to magic by the masses who are utterly devoid of scientific attainments, and therefore very credulous—may nevertheless be exhibited to *Ascetics*—a class, who, whatever might have been their sectarian learning, were generally better informed, more intelligent, and more competent than the common rabble to form an opinion as to the similarity of iddhi patihariya to the feats of the Magician. In the second place, there was no occasion to fear any extortion by the exhibition of miracles to the laity. By a rule already enacted by Gotama, a priest could not ask for anything. Nor did Pingola Bhara-dvaja ask for the bowl mentioned in the legend. It was a free-will gift of the donor, who had been first satisfied of the sanctity and the iddhi of the donee. The former witnessed the miracle, and it is remarkable, did not ascribe it to devilry or magic. He sincerely believed it to be iddhi patihariya, and parted with his bowl in the spirit in which he might have given it, had he been edified by a discourse on Nibbana.

In the next place, if the exception was intended to guard against extortion, how was the object to be attained by limiting the exception to the laity? True enough that Bhikkus were 'beggars' or 'houseless mendicants,' and had nothing to give ; but the same cannot be said of other classes of ascetics—e. g. the Bráhmans, the Tirthakas, the Fir-eworshippers (supposing they came under the designation of Ascetics), and many others.

But it is expressly stated that Buddha performed miracles, doubtless with a view to conversion. This from a Teacher who 'abhorred, refrained from, and censured

miracles' is, to say the least, contradictory; and being contradictory incredible: and our incredulity is intensified when on examination, we find that nearly all his miracles were such—as Gotama himself thought, and Kevatta acknowledged—as might be ascribed to magic. We think, therefore, that we may safely trace the word 'laity' to the compilers, and pronounce it to be an unauthorized addition to the Sutta, and to the Sikkhā.

How then are we to account for the existence of records concerning miracles by Gotama and his disciples?*

We have no difficulty in pronouncing some of them to be allegorical representations, like the battle with Marā; others exaggerations, like the taming of the Cobra in the Fire-house, *vide post*; others inventions, like the traversing over water; others again magical delusions, like the conversion of one substance into another: but they are all *Myths*.

That some wonderful feats were performed by Gotama's disciples we need not hesitate to admit. For instance, we do not disbelieve that Pilindavaccha, like his Master, possessed the art of illuminating a place; and since the legends shew that the illumination of Bimbisāra's palace like that of a Chirmachurgist was of momentary duration we need not hesitate to ascribe the work to magic, and pronounce it to be a 'Myth.' As myths, we need not necessarily pronounce these miracles to be entirely 'conscious fiction,' for, as remarked by Strauss† 'the Myth, in its original form, was not the conscious and intentional invention of an indivi-

* Mahinda is stated to have produced a mangoe at an unseasonable period; see Mahavansa.

† New Life of Jesus, p. 206.

dual, but a production of the common consciousness of a people or religious circle, which an individual does indeed first enunciate, but which meets with belief for the very reason that such individual is but the organ of this universal conviction.' We can easily imagine how such a thing was not only possible but probable. Take, for instance, the group of miracles at U'ruvelāya, which we shall hereafter notice more in detail. They are stated to have taken place when Buddha was alone in the neighbourhood of 500 Fire-worshippers. It is not stated that any of his disciples were present ; nor does it appear that some of his miracles at least were witnessed by any accept one, viz., U'ruvela Kassapa. It is then probable that the record contains what the compilers had heard from others. Doubtless they heard of the conversion of a thousand Jatilas. This of itself was a wonderful result ; and the disciples probably were anxious to learn, and did learn, how that result was brought about. ' Why,' said their informants, ' Gotama practised miracles, and conversions followed.' If when these miracles were related with the inexactitude of persons who had no regard to strict truth, but every wish to exalt the sancity and virtues of the new Teacher, the listeners depicted the legends in high colours, with a desire also ' to paint their master,' who had just before died, and whom death had raised in their estimation and affections, we need not be surprised at legends such as the following, which we shall now proceed to examine :—

During Gotama's stay at U'ruvela he found three fraternities of Jatilas, or Fire-worshippers. One U'ruvela Kassapa was at the head of 500 ; Nandi Kassapa was the chief of 300 ; and Gaya Kassapa of 200. When Gotama

requested of the first permission to stay one night in his house set apart for 'Fire-worship,' U'ravela told him that there was a huge Cobra in it, and that he feared Gotama was not safe there. Unmindful of the danger pointed out, Buddha took his lodgings there, when the Nàga emitted a venomous blast, and Buddha returned it by sending forth a volume of smoke and fire, which completely tamed the animal. On the following morning Gotama put the reptile into his bowl, and with triumph exhibited it to his friend. This was 'Miracle No. 1; and it is similar to another performed by Sàgata,* which we shall here notice.

Once upon a time Gotama, accompanied by his disciple Sàgata went to Bhaddhavâtika, where he was advised by some husbandmen not to enter Ambatittha, because there was a formidable Cobra in the Temple of a Jatila. Regardless of the warning thus received, Sàgata entered the Fire-house of the Jatila, and tamed the Cobra very nearly in the same manner indicated in Miracle No. 1. When the fame of the priest, for working miracles spread abroad, people flocked around him and gave him some Kapatika. The wonder-working priest had not imbibed many doses of this red liquor, before he became intoxicated, and fell down at the gate of the city. Gotama seized the opportunity to shew the utter prostration of man's power by intoxicating drinks, and to remark, that 'the man, who fought with a formidable nàga, could not overcome, in that condition, a feeble and harmless water-snake'; thus clearly shewing that the power of alchocol proved superior to what is called his iddhi.

* Vinaya Pitaka, lib. ii. Cap. 1, Section 6.

Now, taking the legends to be substantially true, we fail to perceive any miracle in the acts ascribed either to the Master or his disciples. It is only invested with such a character by the grandiloquent language used in the relation of a simple act, characteristic of Eastern writers. It was indeed very likely that the Cobra on seeing the new-comer hissed ; and this induced the idea of a 'venomous blast.' We know that 'fire' and 'smoke' are some of the agents employed in the east to catch Cobras ; and there is no wonder, that being in 'the Fire-house' of the Jatila, Gotama soon kindled a heavy fire, and raised a volume of smoke---all which so much oppressed the poor creature that he tamely submitted to the 'dominion' of man. It will thus be seen that if we exclude the haze of miracle and mystery with which a simple story is surrounded by the narrator, viz., that the volume of fire and smoke issued spontaneously without material agency, and at the will of Gotama,--we have no reason to regard this as a miracle. Nor did U'ravela Kassapa, it is stated, so regard it ; and we shall proceed with.

Miracle No. 2. In the course of the day following his stay at the Fire-house, Gotama took his seat in a brushwood ; and four guardian gods of the world ministered to him at night, and exhibited a most resplendent illumination.

Miracle No. 3. On the third day Indra excelled the guardian gods in illuminating the same brushwood.

Miracle No. 4. Sahampati Mahà Brahmà, on the fourth day exhibited a light more resplendent than any that had been previously witnessed by the Jatila chief.

These, it will be observed, are strictly no *miracles*. They were not the work of Buddha. Though they are referred to the agency of the popular Indian gods* of the time ; yet if we divest the agents of their alleged divine character, there is nothing wonderful in an illumination, which, perhaps, did not exceed the light produced by a single gas light of the present day.

Miracle No. 4. On the fifth day the Jatila Chief reflected that, Gotama being such a wonderful person, it would never do to have him at the grand Sacrifice, which was to take place on the following day ; since the people, who would then assemble, might treat him with greater veneration than they did himself. Gotama, perceiving what passed in the Jatila Chief's mind left U'ruvela, and spent the sixth day in the Himaleya. When he returned on the seventh day Kassapa inquired from his friend where he had been, adding that he had kept some cakes for him. Gotama replied that *divining* his thoughts he had left the place.

Again we see nothing in this story, which leads us to doubt its historical accuracy, if we except the mode in which it is related. A shrewd observer like Gotama, without any power of divination, might have seen a hundred circumstances whence to suspect the uneasiness which the Jatila Chief felt at his presence. That he therefore left the place not to interrupt the arrangements of the next day's ceremony is indeed very probable; and it is still more probable that he stated the fact afterwards when questioned—a fact which consisted of a simple suspicion,

* The popular gods of India---the objects of a constant and exclusive worship of the times.

but which the Narrator would have us know, was positive knowledge on the part of Gotama by the power of divination.*

Miracle No. 5. In process of time, whilst dwelling in this brushwood, Gotama found a pansakula robe; and he reflected where he could wash it. Instantly the gods created a pond. When he had descended into it and washed the robe, he found it difficult to get out; and the gods instantly brought within his reach an arm of a neighbouring Kumbuk tree. When, again, he was at a loss how to procure a stone on which he might wash his robe, he was miraculously provided with one, as well as a large stone-slab for spreading the cloth. The Jatila, on seeing these four objects in places where they had not previously existed, was filled with wonder, and asked his friend to breakfast.

If one thing is here more remarkable than another it is that all these four objects were created,—not by Buddha who had no creative power, but by the gods. But putting all supernatural agency out of the question, the facts stated admit of an easy interpretation; and we may trace the presence of these four objects to human agency. We learn from the subsequent part of the narrative (see Miracle No. 13 *infra*) that the place which Gotama occupied was soon after covered by a flood. That circumstance taken in connection with the presence of Kumbuk trees, which generally grow near rivulets and water-courses†, renders it very probable that the brushwood

* Arrian tells us that 'Divination' was an art known to the Indians.

† See Forbes' *Eleven Years in Ceylon* vol. ii., p. 186.

was at no great distance from a running stream. These rivulets in the East are ever covered with stones of different kinds. The digging of a small well in such a place, in the vicinity of water, could not be a formidable task for a couple of men, nor a matter which would occupy more time than a few hours during night. The bending down of a branch of a Kumbuk, so that it might extend over the pond was not an impossibility. The removal of a stone, and a slab from the river into the brushwood was certainly within the power of human agency. Though the presence of Gotama's disciples at this spot is not mentioned, yet on the other hand it is not expressly denied. Why not then attribute the digging of a pit, which receives at the hands of the Narrator the proportions of a pond,—the rolling of a couple of stones, and the bending or twisting down of a branch of a neighbouring tree to the agency of those who were anxious to exhibit some 'signs' of *iddhi pātihāriya* to the Jatila Chief? Of course the presence of these four objects was observed, and they surprised the Fire-worshipper; but though surprised, it is very remarkable that he himself did not regard them in the light of *Miracles*; for, it is expressly stated in the legend that on this occasion as well as on the performance of each alleged Miracle of this group, the Fire-worshipper reflected that 'though his friend was a very distinguished person, yet he did not surpass himself in sanctity.'

Miracle No. 6. We left the Legend at the mention of an invitation to Buddha for breakfast, which Gotama accepted, and desired the Jatila Chief to precede him. When he had accordingly left the spot Gotama went through the air to 'that tree from which Jambudipa is

named'; and, taking some of its fruit, went to the residence of his kind friend before he himself arrived in it. When, however, the Jatila Chief saw Gotama whom he had just before left behind, he was not a little amazed, and inquired, how that came to pass. Gotama it is said explained, and gave his host some Rose-apple, which he refused to accept.

Going through the air is a Miracle, the performance of which is stated by Gotama himself to be possible. But it is not a little remarkable that he admits that the same feat may be worked by Magic, and that the gods had to provide him who could rise in the air with a Kumbuk branch to help his ascent from the well. We therefore refrain from any further comments beyond stating that if Gotama intended an ocular deception, which we, for reasons which will be explained, are rather disposed to disbelieve, he might have overtaken the Jatila Chief by a nearer passage, and reached his house before him.

Miracles Nos. 7, 8, 9, and 10, are similar to the last; and have reference to the fetching of different fruits and flowers from very distant places, one of which was the *heaven* called Tāvātinsa. On all these occasions Kassapa was overawed by the might and wondrous power of his guest; but reflected, as before, that Gotama was not superior to himself.

When such is an acknowledged fact, we may easily conclude, that whatever mystery and miracle there may *seem* to be in the representation of these acts by the Narrator by importing 'heavens' into an otherwise plain story, and however much the acts might have been declared as 'clever,' yet there was nothing in them so miraculous as to shake the pre-existing faith of the beholder, for whom

they were expressly intended,—or to elevate his reverence for, or to fall down and worship, the worker of Miracles.

Miracle No. 11. For the celebration of another Festival, the Fire-worshippers of U'ravela attempted to get some fuel ready, and with this object they set about making faggots. But, so long as Gotama willed it the logs did not yield to the axe, neither did they take fire; nor was the fire extinguishable.

Miracle No. 12. It is next recorded that Gotama miraculously produced five hundred mandāmukhī, or fire-urns, which he presented to the 500 Jatilas. Both these miracles are also recorded in the following verses, which are stated to be the interpolation of a subsequent date.

Bhagavato adhiṭṭhāne na apaṇcakaṭṭh satāni na pāliyinsu nā ujjalinsu ujjalinsu navijjāyinsu paṇca mandā mukhī satāni abhinimmini. 'By the mighty operation of Buddha [was it that] the 500 pieces of firewood were not split, and took no fire : [and it was by the same power that] they did take fire, were not extinguished, and were [afterwards] extinguished; and that he created 500 urns for fuel'—*Mahāvagga, Vinayaṭīkā*.

These two Miracles do not easily come within the category of iddhi patihariya given in the Kevatta Sutta. They are not, as the exemplified cases are, 'dumb-shows' or ocular deceptions.' One of them, at least, if true, proves what Buddhism does not claim for its founder, a creative power. As such, therefore, it is clearly a myth; but it is not impossible to believe that the fire-urns were produced by Gotama's followers; and by a little jugglery they attributed their exhibition to miraculous power; and at a time too

when conveniently all the 500 Jatilas were, as is stated, enjoying a plunge in the Neranjara.

There is then no difficulty in ascribing both these Miracles, as Buddha himself has suggested, to the art of Magic. There is indeed another view as regards Miracle No. 11. We have no clear evidence to prove that Magnetism was known as a science in ancient India; but we are inclined to the belief that many a marvellous feat of the Indian Juggler is ascribable to a knowledge of its power.

Miracle No. 13. The Legend concludes the relation of these Miracles by stating that at this period there was unseasonable rain, that the whole country was inundated including the place in which Gotama had his lodgings, and that by his miraculous power the spot on which he sat was not covered by the water, and was consequently dry. Kassapa, who went in a boat to fetch his friend, was again amazed, not only at the phenomenon just described, but at his friend coming over the water to meet him.

It does not appear whether the spot on which Gotama was seated was either high or low. Nor do we find that the waters which flooded the country, stood in a wall around the sage. But it is not improbable that the place was a hillock, and the waters had not risen so high as to cover its brow. As to his going over the water, we can only regard this as a myth, or an optical delusion. At all events Kassapa did not regard it as a Miracle.

We have thus reviewed some of the most important of the Miracles ascribed to Gotama Buddha. We have examined them with a view to ascertain if they are not simple exaggerations. We have shewn how some of them, at least, are inconsistent with the undoubted principles of Buddhism,

The question which next presents itself is, what opportunities had the compilers for observing, and correctly recording the particulars connected with these so-called Miracles?

The disciples were not always present with the Master. Even if they were, they did not themselves perceive and hear all that they recorded. Even if they did, they could not record, and, as we can shew, did not record, everything; and it was not the wont of any of the ancients to abstain from importing all their own ideas and notions into a matter which they described, or recorded. Zealous in the cause of a Religion which they believed to be the true—over-enthusiastic in extolling the praises of a Teacher whom they regarded as omniscient—credulous in the extreme of matters which the more ignorant people of the present times generally accept as fabulous—ignorant of the most trivial laws of nature—unaccustomed to weigh and balance the evidence necessary to establish a fact however simple,—and led away by the current of superstitions, and belief in Miracles, which were the order of the day, Gotama's disciples, it would seem, hesitated not, for a moment, in recording what they heard, to amplify the tale like 'the story of the three black Crows.'*

* N.B.—The remainder of this paper containing the text and translation of Kevatta Sutta, is held back for want of the necessary type for its publication.—Ed.

On the occurrence of *Scolopax Rusticu'a* and *Gallinago Scolopacina* in Ceylon, BY W. VINCENT LEGGE F. Z. S.

The occurrence of the woodcock and common snipe in Ceylon, has been more than once recorded, on "Sportsman's authority," by those naturalists who have given their attention to the ornithology of the island, in addition to which, during the past ten years, the former bird has been reported to have been killed several times in the vicinity of Newera Eliya; unfortunately, however, the specimens have never been preserved, falling to the lot of the cook and not the ornithologist, and therefore, as regards the ends of science they have been worthless. It may be well, before I enter upon a notice and description of the first scientifically identified examples of these interesting birds, procured in Ceylon, to recapitulate and comment upon, the remarks made by Messrs. Kelaart and Layard, on the existence of the two species here, and which are contained respectively in the Doctors *Prodromus Fauna Zeylanica* and in the notes on Ceylon birds, published by the latter gentleman in the 14th vol. of the *Annals and Magazine of Natural History*, 1854.

Kelaart says, P. 110, Prod. F. Zey, "the woodcock, "the same as the European species, is found on Horton "Plains and occasionally at N. Eliya. We have not "seen the bird, in the feathers, but we have seen a couple "of birds, called "woodcocks" at a dinner table, which "tasted uncommonly like the birds of that name. We

"have no doubt of its existence in the Island, as several English sportsmen assured us of their having shot it." So much for the woodcock. With regard to its smaller ally, the Common* or British snipe, he remarks in the same paragraph: "the English snipe is found in some of the highland districts: we have seen a few at N. Eliya." It is doubtful in what sense this concluding sentence is to be taken, as, farther on, in his list of the birds found in Ceylon, P. 135, Kelaart gives both *G. Scolopacinus* and *G. Gallinula* (the jack snipe) with an asterisk, and says in a foot note at the bottom of the page, "we have only sportsmen's authority for the species of snipe, marked with an asterisk" leading I would surmise, to the inference that he had only seen, or thought he had seen, the bird on the wing, and not handled it in the flesh, and this is the more likely, when we consider that he occupied himself much more with reptiles and animals than with birds. Layard (*loc. cit.*, p. 266) depends chiefly on Kelaart's evidence, and says but little in favour of the occurrence, here, of either of the birds in question. Of the woodcock he remarks as follows:—"The woodcock has been shot several times at Newera Eliya, but has never fallen under the notice of either Dr. Kelaart or myself:" and then quotes the Doctor's words, *vide supra*.

* When remarking on the prevalence of the Indian snipe, in this Island, to the exclusion of the European species, I have so often been met with astonishment on the part of sportsmen and others, under the impression that our winter friend was identical with the bird found at home, it may perhaps be as well to remark here that the two species are very different indeed although to the casual observer they may seem to be the same, the Indian bird differing chiefly in the markings of the flank and under wing coverts and in the structure of its tail, from the remarkable "pin" feathers of which, it takes its specific name of *Stenura* or "Pintail."

Touching the Common snipe, Layard says "not having met with it, I am obliged to quote Dr. Kelaart for its identity; he says 'It is found &c. &c.' I shot many snipes at Gilleymally, which proved to be the preceeding species *; but I see no reason why the bird should not exist in the Island, as it is found at Calcutta. Why however in this case"—referring to Kelaart's mention of it at Newera Eliya—"should it be confined to the hills †"

Mr. Holdsworth, when in Ceylon, devoted his attention to the identification of these two species, but was unsuccessful, although he passed much of his time at Newera Eliya; but the news of the securing of the woodcock, which I shall presently refer to, reached him before the completion of his Catalogue of Ceylon Birds, published last year in the proceedings of the Zoological Society, and he was therefore enabled to speak with certainty as to its occurrence in the island. With regard to the British snipe he remarks, No. 241, Catalogue, Ceylon Birds "of the four reputed Ceylon species *G. Stenura* appears to be the only one which has been positively identified."

So much for the previous history of these two members of the *Scolopacinae* as regards Ceylon, and though it has taken up some little space in what I would wish to make a short paper, I doubt not, that in a scientific point of view, it cannot but prove of some interest, as shewing the spirit of enquiry displayed by these naturalists as to whether our island should prove to be the most southerly point reached by birds of such wide northern distribution

* *Gallinago Stenura*, the "Pintail."

† And so I would ask too---this remark of Kelaart's leads to the belief that he was mistaken in his identification,

as they are. And there is no doubt whatever, that in most of the instances referred to, the woodcock at any rate, had been rightly identified by those who had shot it : furthermore it is very improbable indeed, looking at its geographical distribution, as regards Southern India, in the cold season, viewed in connection with the remarkably analogous avi-fauna of the Nilgherries and Newera Eliya, that a single season passes without its visiting the higher parts of our mountains. In some few instances, nevertheless, the Wood snipe, *G. Nemoricola*, Hodgson, which I shall presently refer to, has probably been mistaken for the "Cock" by those who were not acquainted with the distinguishing characteristics of the latter, the most important being the feathered tibia *down to the tarsal joint*, in contradistinction to the *bare* space above that part, which specializes at once all the members of the genus *Gallinago* or Snipe.

The example which has at last enabled us to speak with certainty of the occurrence of the woodcock in Ceylon, was shot last* year in February near Newera Eliya, by Mr. Fisher of the Ceylon Civil Service, and was given to a Planter by whom it was sent home not long ago, to Mr. Holdsworth. Through the kindness of a gentleman who was taking the skin to England, I was enabled to examine it and take a description of it which I propose to introduce here for the benefit and information of those members of our Society who are sportsmen, and whose experience of the bird at home, has perhaps not

* I am unable to procure a copy of the paper in which the event was noticed, and I cannot therefore, give the precise date,

been sufficient to make them thoroughly acquainted with its plumage.

Dimensions. Wing, from carpal joint 8½ in. Bill at front nearly 3.15; tarsus 1.4; mid toe 2; its claw 0.3 hind toe 0.5.

Soft Parts. Not having seen the bird in the flesh, I am compelled to quote from Dr. Jerdon's Birds of India, "Bill fleshy grey; legs livid; iris dark brown."

Description. Lores, chin and sides of forehead greyish fulvous, top of head and occiput dark sepia brown, barred and tipped with rich fulvous tawny, a darkish line running down the forehead to base of bill; a broad sepia brown line from gape to eye; above, general aspect of plumage dark sepia brown and ferruginous, the back and wing coverts being barred with the latter and the interscapulars, scapulars and tertials mottled marginally and indented with the same; interscapulars, and scapulars tipped and crossed with rich buff mostly on the outer webs, and with the dark markings on the inner webs black; greater wing coverts barred with buff; lower back and upper tail coverts more narrowly barred than the adjacent parts; quills dark hair brown, spotted marginally with buff and barred with ferruginous on all but the first and second, which are only edged and indented with white, and with buff respectively; tail black, marginally spotted with rufous and broadly tipped smoky grey, which shows white beneath; under surface fulvous tawny, narrowly barred with brown; under wing coverts the same, the tawny ground color darker than elsewhere beneath.

The woodcock, as far as Asia is concerned, breeds and spends most of the year in the north of the continent, and migrates in October to the Himalayas and wooded

regions of all the mountain ranges of central and southern India, some few, as we can now safely testify, straying as far south as the mountains of this island. According to Jerdon it is tolerably numerous in the Neilgherries, and in Coorg, in which latter place, good bags are frequently made. I have no doubt, that if the woods round Newera Eliya were beaten with the help of dogs, stray birds would often be picked up. It should be looked for, as in England, along the damp boggy edges of streams in the forest, say between the Sanatorium and Horton plains.

The woodsnipe, *Gallinago Nemoricola* Hodgson, is recorded, by Jerdon (Vol. III, P. 672 of his Birds of India) as occurring in Ceylon, but it is not clear where he obtained his information from*. Mr. Neville, however, (J. A. S., C. B., 1876—70, p. 138) has set the matter at rest by describing there a specimen of this species that was shot near Newera Eliya, four to five years ago. It is much to be regretted that the skin was not preserved, as it would have been an exceedingly valuable addition to the Society's museum. Looking at various characteristics of this snipe, such as its size, large ample wings and consequent heavy flight, resembling that of the woodcock, it is possible that in the absence of specimens of the latter for comparison, it may have been mistaken, as I have remarked (*ante*, p. 67)† for that bird, but with the very limited data to hand, concerning either species in Ceylon, it is impossible to speak with certainty on this point.

* Neither Layard or Kelaart makes mention of this bird from Ceylon.

† The woodcock according to Indian Authors is as rare, if not rarer, in India than the woodsnipe, and therefore it will be as well to remark that my reasons for stating that it "had probably been mis-

The example of the Common snipe, *Gallinago Scolopacina*s, which I have the pleasure of bringing to the notice of the Society to-day, and which furnishes the first authenticated instance of its occurrence in this country, was shot at the great snipe ground of Tanglegam, near Trincomalie on the 6th of January last, by Major Meaden of the Ceylon Rifles. On proceeding to that station in October last, I was informed by more than one gentleman, of the existence during the last few seasons, in the immediate neighbourhood of the port and at the above mentioned place, of a different kind of snipe from the Pintail. It was described to me as being about the same size as that bird, possessing a white bar on the wing and

taken, &c." (*ante p. 67*) are founded on remarks I once heard from a gentleman concerning a reputed woodcock seen at Newera Eliya some years ago, and which were to the effect, that "it was only a large snipe." It is not unlikely also that it is a straggler to the lower country of Ceylon, as I have it on very good authority that a very large snipe, which by the way I wish I had seen, was shot near Galle last March twelve months. I append here Jerdon's description of this species (*Birds of India*, vol. III. p. 672).

"Top of the head black, with rufous yellow longish markings; upper part of back black, the feathers margined with pale rufous yellow and often smeared bluish; scapulars the same, some of them with zigzag markings; long dorsal plumes black with zigzag markings of rufous grey, as are most of the wing coverts; winglet and primary coverts dusky black, faintly edged whitish; quills dusky; lower back and upper tail coverts barred reddish and dusky; tail with the central feathers black at the base, chestnut with dusky tips, towards the tips; laterals dusky with whitish bars; beneath, the chin white, the sides of the neck ashy, smeared with buff and blackish; breast ashy, smeared with buff and blackish, barred; the rest of the lower plumage with the thigh with numerous dusky bars; lower tail coverts rufescent with dusky markings; under wing coverts barred black and whitish. Bill reddish brown, pale beneath; iris dusky brown; legs plumbeous green.

Length $12\frac{1}{2}$ in.; extent 18 in.; wing $5\frac{1}{2}$ in.; tail $2\frac{1}{2}$ in.: Bill at front 2 5-8th in.; mid toe 1 10-16th in.

having, on being flushed, a very hoarse kind of "pipe," reminding one of a bird with a cold!

I was unable to premise from this diagnosis* what the species might prove to be; my friends however, promised to keep a sharp look-out for the stranger, and accordingly my curiosity was ere long rewarded by a specimen of the British Snipe being brought to me on the 29th of December, but which had been so devoured on the way home by ants that it was useless. A week later I again received through the kindness of the same gentleman, a second example, the sex of which, however, I am unable to record, as it was shot and skinned for me while I was absent on a shooting trip. Nevertheless I propose to describe it in the pages of the journal of this Society, as being the first of its species *identified* in the island, and as affording a means of comparing it with, and distinguishing it from, the allied Malayan form so common with us every year.

Dimensions. Wing 5.2 inches; tail 2.25; tarsus 1.2; mid toe 1.1; its claw 0.2; outer toe and claw 1; bill to; forehead 2.7.

Soft Parts. Iris brown; legs and feet greyish green; bill reddish brown, paler beneath.

Description. Centre of forehead, crown and occiput dark sepia brown, edged rufous on the latter part; chin, throat and cheeks, with a stripe over the eye from base of bill and another mesial line on the head, buff grey with a dividing stripe from nostril to eye; back of neck and upper part of its sides dark brown, with buff and grey

* My informants referred, as I afterwards ascertained, to the white tips of the secondaries, when speaking of a *white wing bar*.

terminal spots on the outer webs; interscapulars, scapulars and dorsal plumes black, with buff outer margins and tips, and irregular cross lines of rich fulvous; back brown the feathers tipped greyish, with the upper tail coverts changing into rufous yellow with black interrupted bars; quills and median wing coverts, hair brown, the latter edged and tipped greyish; primary wing coverts and secondaries tipped white, the latter very broadly so; 1st primary with a white outer web to within an inch of the tip; tail black, the terminal half-inch rich rufous with whitish tips and narrow cross lines of black; beneath, foreneck and sides brown with fulvous edgings, and dark mesial lines breast and belly white, flanks brown with light tips and bars; auxilliary plumes white, with narrow, distant brown bars; under wing coverts white, *barred lightly* with brown.

Major Meaden whose attention was forcibly drawn to the existence of this snipe near Trincomalie by its peculiar note, informed me that he had not noticed it prior to some two or three seasons back, although he had been shooting over the same ground for the past ten or eleven years. A pair frequented the vicinity of the "Salt Lake," a small snipe ground, some four miles north of the town, the year before last, but were not seen there this season.

As remarked by Layard (see *ante*, p. 66) I don't comprehend why the common snipe, in the days of Kelaart should have been "confined to the hills," and, as frequent inquiries of late years, have failed to elicit any information as to its occurrence in the Central Province, it is highly probable that, as Kelaart most probably never handled the bird in the flesh, he was mistaken in his identification of the species. It no doubt occurs in the Jaffna peninsula

in common with the jack snipe, *G. Gallinula*, which I am informed, on a very good sportsman's authority, is frequently shot there. This species again, requires scientific identification, and I am very sanguine of obtaining specimens next season when I shall hope to have the pleasure of introducing it to the notice of the Society.

The distribution of *G. Scolopacinus* in India during the cold season, has, it appears, lately been exciting some attention. I notice that Mr. Hume (Stray Feathers, p. 235) found it, with *G. Gallinula*, in Sindh, to the exclusion of the "Pin-tail," and, as regards his opinion that it is *the* snipe of Bengal, *Stenura* being "scarcely ever found" there, "Z." a well known Indian naturalist, remarks in the "Field" newspaper of February 8th, 1873, that he cannot agree with Mr. Hume and writes, *loc cit.*, "that of the myriads of snipe which are brought yearly to the Calcutta provision bazaar, I know from long experience that one occurs as commonly as 'the other,'" and adds, further on in the same notice, that Mr. W. T. Blandford remarks (J. A. S. Bengal, 1869, p. 104) that he has never seen a specimen of *G. Stenura*, the Pin-tail, from central and western India, and quotes, in addition, another writer in the same journal (1871, p. 215) who says that *G. Scolopacinus* is the snipe of Nagpore; that at the Nilgherries and at Bangalore all the snipe he had killed were Pin-tails, whereas at Madras in December, the two species were in about equal proportions. These observations, therefore tend to shew that the Common or British snipe affects the north-west (Sindh) and west of India, to the exclusion of the Malayan or Pin-tail, and that they both inhabit the Eastern side of the peninsula in

the *coldest* part of the season. This, on consideration, would seem to be the most natural range for the two birds, the former breeding in the western parts of Siberia and coming in round the western end of the great Himalayan range ; while the latter, which most likely breeds in the central part of the great Russian territory, and the country to the north of China generally, would, as a matter of course, enter India by the north of Burmah, and spread through Bengal and down the east coast of the Peninsula, monopolizing likewise the whole of our little Island, to the almost entire exclusion of its western and less tropical congener.

Transcript and Translation of an ancient Copper-plate Sannas, by *Mudaliyar* LOUIS DEZOYSA, *Chief Translator to Government*.

I have the pleasure to lay before the Society, an ancient Copper Sannas, together with translation and transcripts of the text in modern Sinhalese, and Roman characters. It was discovered a few years ago, under ground, in the Kadiràna Cinnamon Plantation near Negombo, by some women while digging edible roots.

The Sannas bears no date, but purports to be a grant,—or rather the confirmation of a previous grant of a former sovereign at Kurunegala,—by King Vijaya Bāhu, of Udu-gampola in Alutkūru Korale.

There are seven Kings of this name in the list of sovereigns of Ceylon; but from the forms of letters used, which are similar to those engraved in the Rock Inscriptions of the 14th or 15th Century, and from the allusion to a previous grant made when the seat of Government was at Kurunégala (between A. D. 1319—1346), it is evident that this grant must be ascribed, (*unless indeed it was issued by a Provincial Rájá of Udu-gampola not included in Turnour's List*) either to King Vijaya Bāhu VI., who reigned (according to Turnour) at Gampola [*Udu-gampola?*] A. D. 1398—1409, or to Vijaya Bāhu VII., who reigned at Kôtte A. D. 1527—1533. If to the former, this Sannas derives a peculiar interest from the fact of its being a grant made by the unfortunate monarch whose capture by the Chinese is one of the strangest episodes in the

history of Ceylon. This event is represented in the Sinhalese annals, as an act of "Treachery," on the part of the Chinese, but in the Chinese version given by Sir Emerson Tennent,* as the result of a battle fought between the Chinese and Sinhalese armies. A writer in a local Newspaper † having recently charged the Sinhalese annalists with having omitted "some unpleasant episodes" in their history, I have collected some interesting particulars on this subject, which, however, instead of appending to this note, I hope to embody in a separate paper and lay before the society on a future occasion.

I have succeeded in deciphering the whole of the text of the Sannas, with the exception of a few unimportant words, the reading of which is doubtful, and I shall feel thankful to any gentlemen who may kindly favor me with their remarks on the doubtful words, which I have underlined in the Sinhalese, and italicised in the English Transcript.

TRANSLATION,

On the fifteenth day of the dark half of the month of *Poson* (1), in the ninth (2) year of the reign of the illustrious Emperor Sirisangabo Srī Vijaya Bāhu, lineally descended from the happy, illustrious, progeny of Vaivassuta (3) Manu, born of the solar race, son (descendent) of Rājā Sumitra, of pure race, lord of the three Sinhalas (4) and lord

* Vide his History of Ceylon Vol. I. p.p. 416-17, and p.p. 622-625.

† Ceylon Observer March 7th 1872.

(1) June—July.

(2) Lit "the succeeding year to the eighth."

(3) More correctly, *Vaivasvata*. The son of the Sun, the manu of the seventh (or present) Manvantara.

(4) Lit the "three Ceylons." In reference to the ancient divisions of Ceylon into Pihiti, Māyā, and Ruhunū.

of the nine gems,—(His Majesty) by his royal command delivered while seated at the new palace at Udugampola (5) in the midst of all engaged in (state) affairs, has granted a second time, on the day of an eclipse of the sun, (6) by way of a second (or confirmatory) grant, on the terms of a previous grant received from the Court of Kūrunégala, the field (?) *Walala** Palle Réravila, situated close to it, the field Lindora, A'kata Diwela, Kēkulan Owīṭa (7) together with villages, *moneys* (†), *trees*, jungles, marshylands, fields, Owīṭas, belonging to the *nilaya* (office?) of the two pēlas of husked rice (8) of Dombawala belong-

* The readings of the words in *Italics*, are doubtful.

(5) A village in the Dāsīya Pattu of the Alutkūru kōrale. It is mentioned in the history of Ceylon so far back as the second Century B. C. Prince Uttiya, brother of the king of Kēlani, is said to have made it his retreat on the detection of his criminal intrigue with his brother's Queen. Col. Forbes, who gives a full and interesting account of this romantic legend, ["Eleven years in Ceylon, Vol. I, p.p. 154--156] states that the Prince fled to *Gampola*, but the native histories distinctly mention that it was *Udugampola*. We learn from the *Rājāvali* that a branch of the royal family of *Sirisangabo* settled itself in that village and from several circumstances mentioned in history, I think it is probable that king Vijaya Bāhu VI who was treacherously taken captive by the Chinese, was a Provincial Rājā of *Udugampola*, and not the king of *Gampola*, as stated by Turnour and Tennent. I shall recur to this subject, when treating of the Rock Inscription at Pepiliyāna near Kōtta, which I intend to lay before the Society on a future occasion.

Udugampola is situated about 25 miles from Colombo, and about 4 miles from the Veyangōḍa Railway Station. There are some Ruins still to be seen in the locality consisting of the remains of an ancient tank with retaining walls of masonry, and some stone works. The site of the palace is still pointed out as *Māligageḍḍella* (Palace Hill) and from our grant, it would appear that more than one palace exist there, for this grant is stated to have been issued from "the New Palace at Udugampola."

(6) The granting of lands "at the time of an eclipse" appears to have been an ancient custom of Indian kings (vide Translation of a Copper Plate grant of A. D. 1443, by John Beames Esq. B. C. S., in the INDIAN ANTIQUARY for December 1872, p. 355.)

(7) This field still retains its old name.

(8) This, I suppose, is the amount of rice contributed to the State by the tenants of these lands.

ing to Udugampola in the Alutkùru Kòrale,—to the Brahman Venrasu Konda Perumál * * * * making arrangements for its protection so that the grant may endure permanently. In proof whereof, I, Sanhas Makuṭa *Veruna* Vanapa Perumál, have written and granted this Copper Sannas.

“ Good men do not eat rice left in charity by good men ; dogs eat such rice, and although they vomit, they eat it again. Like them (the good men) if ye protect this grant given by good men, O good men ! you will acquire merit in both the worlds.”

ŚRI'

Svasti śrī Vaivassuta manu saṅkhyāta mahā Sammāta paramparāṇuyāta Sūrya vaṇṣotbhūta Sumitra rājaputra pavitra gotrābhijāta tri Siṅhalādhīṣvara navaratnādhipati Śrīmat Siri Sangabó Śri Vijaya Báhu Chakravarti swámin wahansēta atawanan matu awurudu posona awa pasalo swakē Alutkúru Kóralaye mehibada Udugampala santakin Dombawala sál depēlē nilayāta etulatwú *Walala yīma* Pallé Rerawila Lindora Kumbura, A'kaṭa Diwela, Kēkulan O'wiṭa mehibada gam *mudala* gasakola walwil kumburu ówiṭi paḷamu kurunēgaldílat dána-patrāya niyáwāta dewaniwat Sūryagrihaṇa dinaye bamuṇu Venrasu Konda Perumálāta *yáruppāwá* uvadána kshetra koṭa sitá wadará *chakra* araka *sapāya* svastirawa pawatiná niyáyen Udugampala alut máligáwe wēḍahinda káriyāta niyukta emadená meḍa wadāla mehewarin me támbrapatrāya liyádun bawāta Sanhas mákuṭa *werun* Vanapa Perumálumha. Sudano anun haḷa pinbatda noma kati. Balló é bat ká neḡuwat neḡeṭa kati. Un sé topi me sujanan dun ayati rekaduna sujanayeni delowātama piṇ ēti.



සවිසාරි ශ්‍රී වෛ වසුසුත ඵණ්‍යසංඛ්‍යත මහා සමමන පරමප
 රණ්‍යසාන සුසංඛ්‍යොත්තූත සුමිත්‍රත්පුත්‍ර පවිත්‍රගොත්‍රාති
 ජාත ත්‍රිසිංහලාබිශවර නවරහනාබිපති ශ්‍රීමත්සිරිසහබෝ
 ශ්‍රීවිජයබාහු චක්‍රවතීති සමාමිත්විහන්සේට අටවනෙන් මතු
 අවුරුදු පොසොන අවපසලොස්වකා අඵත්තුරු කොරළ
 යෙ මෙහිබඳ උඩුගම්පළ සනතාතින් දෙඹවල සාලදෙපැලේ
 නිලයට ඇතුළත්වූ වලල සිම පල්ලේ රෙරවිල ලිත්දෙර
 සුඤ්ඤ අංකට දිවෙල කැකුළන් මිව්ව මෙහි බඳගම් මුදල
 ගසකොළ වල්විල් කුඹුරුමිව්ව පළමු තුරුණැගලදී ලත්
 දන පත්‍රය නිසාවට දෙවනුවත් සුසංඛ්‍යානන් දිනෙය බමුණු
 වෙමරලා කොඔපරුමාළාව සාරුප්පාලා උවදනාසෙත්තු
 කොට සිතාවදුර චක්‍ර අරත සපාය සුසාරිව පවතිනා
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 නිසුකරා ඇමදෙනාමැද වදළ මෙහෙවරින් මෙහාඤ්ඤ පත්‍රය
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 ඒ බන්කා නැගුවත් නැවතනති උන්සේ නොපි චෙසු
 ජනන් දුන් අයති රුකදන සුජායෙති දෙලොවටම පින්
 ඇති.

JOURNAL
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OF THE
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CONTENTS.

	PAGE.
Description of a supposed new genus of Ceylon Batrachians. —By W. Ferguson, F.L.S.	1
Notes on the Identity of Piyadasi and Asoka.—By Mudaliyār Louis de Zoysa, Chief Translator to Government ...	7
On the Island distribution of the Birds in the Society's Museum.—By W. Vincent Legge, R.A., F.Z.S. ...	11
Brand Marks on Cattle.—By J. D'Alwis, M.R.A.S. ...	60
Notes on the occurrence of a rare Eagle new to Ceylon ; and other interesting or rare birds.—By S. Bligh, Esq., <i>Kotmalé</i>	64
Extracts from the Records of the Dutch Government in Ceylon.—By R. Van Cuylenberg, Esq.	69
The Stature of Gotama Buddha.—By. J. D'Alwis, M.R.A.S.	74



JOURNAL
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DESCRIPTION OF A SUPPOSED NEW GENUS OF
CEYLON BATRACHIANS.

BY W. FERGUSON, F.L.S.

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TRACHUCEPHALUS.

Fingers and toes tapering, very slightly webbed. Lower jaw with marked, but not prominent apophyses, with a small fang-like process in the centre; the internal openings of the nostrils and eustachian tubes small; tympanum small, but conspicuous. Small parotoids present? The transverse processes of the sacral region dilated. (Maxillary and Vomerine teeth present.) Vomer with two separate toothed prominences. A toothed prominence on each side between the choanæ and the jaw. The upper eyelid well developed, but not prominent. A cutaneous fold between the fore and hind limbs.

TRACHUCEPHALUS CEYLANICUS.

Head very broad, much depressed, and very short in proportion to its breadth, the upper lip having a marked rim all along it, forming nearly a section of a circle, somewhat convex in front; the whole of the upper part of the

head including the eyelids and the tympanitic region, covered with small, irregular, granular tubercles. Snout considerably pointed, with its extremity prominent and perpendicularly truncated, and very slightly overreaching the cleft of the mouth. Canthus rostralis obtuse, loreal region concave, with a smooth groove running through it from the lower part of the orbit to the nostril. Occiput deeply concave. Nostril slightly below the extreme end of the canthus rostralis and the snout. Eye of moderate size, prominent, but concealed from above by the eyelid. Tympanum distinct, one half as large as the eye. A linear fold runs from the hinder edge of the orbit over the tympanum towards the armpit. Cleft of the mouth twice as broad as long; tongue not large, broadly but not deeply notched behind, attached to the gullet nearly its whole length. There is a toothed prominence on each side of the vomer, a little lower than the openings of the nostrils, and running in a straight line across the jaw. Vomerine teeth on long ridges gradually rising from the inner angle of the choanæ, running back and convergent behind, terminating in toothed prominences. Skin of the back, belly, throat, legs and inside of fore limbs smooth. The whole of the upper part of the head including the eyelids, the front of the fore limbs, and a remarkable cutaneous expansion on the side of the trunk between the fore and hind limbs covered with granular-like tubercles, with a few smaller ones on the tympanum. The smooth portion of the skin of the back is separated from the rough head by a somewhat elevated ridge, caused by a depression of the head, and running in a line across just behind the orbits, and continued into the linear fold behind the tympanum, a good deal like that in the adult *Rana Kuhlii*, figured by Dr. Günther, Indian Reptiles t. xxvi. fig. A. Limbs of moderate length, the length of the body two-tenths of an inch longer than the distance of

vent from heel. The third finger is about one-tenth of an inch longer than the fourth, which is slightly longer than the second. These three fingers form a palmated group in advance of the first, and are very slightly webbed. First finger about half the length of the third. Metatarsus with a small tubercle below the first toe. The fourth toe (including the metatarsus) is exactly one half the length of the body. The third toe is slightly longer than the fifth. A very short web between the first, second, third, and fourth toes only. The fifth appears to be quite free.

Upper parts (in spirits) dark brown with lighter coloured spots; outer parts of hind and fore limbs clouded with brown; inner sides, and the cutaneous expansion coloured dark grey, with small brown spots; belly dark livid colour; throat suffused with brown.

The following are the dimensions of the only specimen in my possession:—length of body 1·8; vent to heel 1·6; hind limbs 2·8; fourth toe (including the metatarsus) 0·9 inches.

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I do not know any frog with which to compare this one in its general appearance and character; it is one of a few set aside from my collection by Major Beddome, when on a visit to Colombo lately, and pronounced by that gentleman to be new to science, and which, from a feeling of delicacy he declined to accept from me. In searching for its place in the synoptical list of the characters of the genera of Batrachians given in page 400 of Günther's work on Indian Reptiles, I felt that it could scarcely be removed from the first division, *b*, of the group of Ground Frogs, and it seemed most closely allied to the genus *Xenophrys*, of which one species *X. monticola*, is described and figured by Günther in the work referred to, p. 414, and plate xxvi, figure H.

In the generic and specific descriptions which I have given for this supposed new Ceylon frog, I have followed the exact order of Dr. Günther's description of the Indian frog above referred to; to facilitate comparisons between the two.

The generic descriptions of *Xenophrys* and *Trachucephalus* (rough head,) are in many respects so similar that it is not unlikely the former may be so amended as to include the Ceylon Frog, but the very distinct aspects of the two, and some remarkable differences more fully given in the specific description, have induced me to include our Ceylon frog in a new genus with a name indicating its singular *rough head*.

In page 85 of the Proceedings of the Asiatic Society of Bengal, for March 1870, the late Dr. Jerdon in the following extract from his "Notes on Indian Herpetology," has shewn that vomerine teeth are present in the genus *Xenophrys*:—"I obtained numerous specimens of *Xenophrys monticola*, Günther, both at Darjeeling and the Khasi hills. It has distinct vomerine teeth which Günther was unable to detect in the specimens of the British Museum. I also obtained five specimens of a larger species of *Xenophrys* both in Sikim and the Khasi hills, which I propose describing as *Xenophrys gigas*."

It is very likely that if these specimens of the undescribed species referred to, exist, it may be found that they have peculiarities of structure connecting them with *Xenophrys monticola*, Günther and our Ceylon frog.

I regret to say that I have only one specimen of this supposed new frog, and that I am not certain as to where it was found, though I believe I caught it on the sides of a stream near Hewisse in the southern portion of the Western Province, and famous as one of Mr. Thwaites's best botanical districts. I regret also to state that like many of the earlier frogs caught by me, this one was put into strong

spirits, which have shrivelled it up to a certain extent. It is very thin and flat in proportion to its size, and I doubt not that, like species of *Hylorana*, it is a powerful leaper. In the specific description given, I have tried not to omit a single character which might assist in the identification of this frog.

The interdigital membrane connecting the first, second, third, and fourth toes, is just perceptible, but I have no doubt that in newly caught specimens it will be found quite distinct.

I have marked the presence of *Parotoids* with a query thus (?)—because I am not certain whether the slight enlargements behind the orbits are parotoids or not.

Writing about *Rana Kuhlü*, Schl. of Ceylon, W. Theobald, junr., Esq., in his catalogue of Reptiles in the Museum of the Asiatic Society of Bengal, makes the following very appropriate remarks, which are equally applicable to all the Indian and Ceylon Batrachians, and the Geckotidæ.

“There are no reptiles in India in such a confused state as the *Ranidæ*, and I can add but little towards disentangling the shadowy species, real enough perhaps, but not as yet characterised. The series in the Museum is a very poor one, and the *Ranidæ* from all parts of India must be assiduously collected, before sound results can be obtained. Let us hope that an urgent appeal for frogs from all parts of India [and Ceylon, W. F.] will be liberally responded to by local naturalists and collectors, without which aid the subject must long remain in its present unsatisfactory state. Each contributor should not send merely the most conspicuous frogs from his neighbourhood, but all the species and varieties he can procure.”

As an illustration of the liability to add to, and perpetuate the confusion connected with some of the frogs and other reptiles, I may refer to a rare Ceylon frog found first on Adam's Peak, several years ago by Dr. Schmarda,

Professor of Zoology in the University of Prague. On a fly sheet after page 21 of the second part of Dr. Kelaart's Prodrömus of the Faunæ of Ceylon, published in 1853, this frog is very briefly described by the late Dr. Kelaart under the following name, "*Polypedates* (?) *Schmarda. n. s. nobis.*" The "*Schmarda*" being no doubt a slip of the pen for "*Schmardana*," under which latter name, and under the genus *Ixalus*, Günther refers to this, then doubtful frog, in his Indian Reptiles, p. 433. Theobald in his Catalogue referred to, p. 85; gives this frog as follows:—

"*Polypedates Smaragdinus*, Kelaart, Ceylon. Eye bones armed with spines. Limbs studded with tubercular sharp pointed spines. A very peculiar species, and probably a distinct generic form."

Jerdon in the paper referred to, pp. 83-84, and Anderson in his list of accessions to the collection of reptiles in the Indian Museum, since 1865, refer distinctly to an Indian frog described by Blyth in foot-note to p. 48 of Appendix to Kelaart's Pro. Faun. Zeyl, as the *Polypedates Smaragdinus*, found on the Khasi hills. The specific name here means *Emerald Green*, and Mr. Theobald's *P. Smaragdinus*, ought to have been *P. Schmardana*. On page 85 of the Annals and Magazine of Natural History for January, 1872, containing "descriptions of some Ceylonese Reptiles and Batrachians by Dr. Günther, this frog is finally and I suppose properly named, though not yet described, as *Ixalus Schmardanus*," (Kelaart.)

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[Read 5th February, 1873.] ✓

# NOTE ON THE IDENTITY OF PIYADASI AND ASOKA.

BY MUDALIYÁR LOUIS DE ZOYSA, CHIEF TRANSLATOR  
TO GOVERNMENT.

~~~~~

When James Prinsep discovered the lost alphabet of ancient India, and read the rock inscriptions at Delhi, Gírnar, Cuttack and Affghanistan, which had baffled the attempts of all previous Orientalists and others to decipher, he found that they were written in the Páli language, and were edicts issued by a king whose name was "Devánampiya Piyadasi Rája," "Piyadasi, the beloved of the gods;" but he was unable to find the name of such a sovereign in any Indian history, or record. He however lost no time in communicating his wonderful discovery to his friend and fellow-labourer in Ceylon, the late Honourable George Turnour, who at once identified the sovereign as "Asoka" or "Dharmásoka," the great Buddhist Emperor of India, under whose auspices Buddhist Missionaries were sent to Ceylon and various other countries in Asia, and in support of his statement, quoted a passage from the *Dípa Vansó*, an ancient history of Ceylon. Mr. Prinsep in acknowledging the service thus rendered to him by Mr. Turnour, wrote as follows:—"The first correction in point of importance, comes, as usual, from Ceylon, the very Lanka (to apply its own fabulous prerogative metaphorically,) the very first meridian whence the true longitude of all ancient Indian history seems destined to be calculated!" And again, "Mr. Turnour has thus most satisfactorily cleared up a difficulty that might long have proved a stumbling-block to

the learned against the reception of the lāt inscriptions as genuine monuments of a fixed and defined period, the most ancient yet achieved in such an unequivocal form.”—(*Bengal Asiatic Society's Journal for September, 1837.*)

In 1849 however, after the death both of Prinsep and Turnour, the late Professor H. H. Wilson, the great Sanskrit scholar, read before the Royal Asiatic Society of Great Britain and Ireland, an elaborate paper, extending over 100 pages, giving a proposed re-translation of Prinsep's edicts, together with the translation of one, then recently discovered at Kapurdigiri in Affghanistan. In this paper, the learned Professor while admitting the probability of these edicts being issued by a Buddhist king, and for the purpose of disseminating Buddhism, contended that the evidence on which these opinions were expressed by Mr. Prinsep, was not “conclusive,” and that the identification of “Piyadasi” with the Buddhist emperor Asoka, rested on an isolated passage quoted by Mr. Turnour from the *Dīpa Vansó* of Ceylon.*

Mr. Edward Thomas, the learned Editor of “Prinsep's Indian Antiquities,” says,—“that in a subsequent article on the Bhabra Inscription, the Professor frankly admits that “although the text is not without its difficulties, yet there is enough sufficiently indisputable to establish the fact, that Priyadasi, whoever he may have been, was a follower of Buddha.” Mr. Thomas adds, “Our leading Orientalist, it will be seen, still hesitates, therefore to admit the identity of Priyadasi and Asoka. With all possible deference to so

* The doubts raised by Professor Wilson on the identity of Piyadasi, and Asoka, have induced Dr. R. G. Latham to read before the Royal Asiatic Society an elaborate paper entitled “Date and Personality of Priyadasi,” in which he proposes to identify Piyadasi, with Phraates, king of Parthia!

high an authority, I am bound to avow that I see no difficulty whatever in the concession. We may stop short of absolute and definite proof, that Asoka enunciated his edicts under the designation of Priyadasi, 'the beloved of the gods,' but all legitimate induction tends to justify the association which is contested by no other enquirer."—(*Turnour, Lassen, Burnouf, Cunningham, Sykes, Max-Müller, &c*).

I venture to think that something like "the absolute and definite proof" alluded to by Mr. Thomas may be found in the Buddhist annals of Ceylon. The identification of Piyadasi and Asoka, does not rest, as supposed by Professor Wilson, on a single passage of the *Dīpa Vamsō*, but the fact is well known to all Buddhist nations, at least to those of Ceylon, Burma, and Siam.

I am happy to be able to produce a few passages from Buddhist works other than the *Dīpa Vamsō*, in which the name "Piyadasi" is applied to king Asoka.

The first passage I shall quote is from *Sumangala Vilāsini*, Buddhaghosa's Commentary on the "Digha Nikāya." In his Commentary on the "Mahā-parinibbāna Suttan," the Commentator gives an account of the death, and funeral of Buddha, and the division of his relics amongst the various kings of India and the surrounding countries. He relates moreover, that after the distribution of the relics amongst the Princes of India, the main portion was deposited in a "Thupa" built of stone, and in it was also placed a golden plate on which the following words were inscribed:—

“අනාගතෙ පියදසො නාම කුමාරෙ ජතං උසො පෙඨා අසො ඛො බ්‍රහ්මරූප හවිසාති—සො ඉමංධාතුයො විජාරිතා කවිසාති”

“Anāgate Piyadāso nāma kumāro chattan ussāpetvā Asoko Dhamma Rāja bhavissati So imā dhātuyo vitthāritā karissatīti.”

"In a future (age) a prince named Piyadáso, raising the umbrella of dominion, will become king Asoka the righteous, and he will distribute these relics."

The Commentator further relates that 218. years afterwards, when king Asoka after his conversion to Buddhism, caused the relic receptacle to be opened for the purpose of obtaining relics to build "Thupas," he found to his inexpressible wonder and joy, the gold plate on which the above prediction was inscribed, and thenceforward, he became the most zealous patron that Buddhism ever had.

In *Rasaváhini*, which is a Collection of tales and stories relating to ancient India and Ceylon, the author in his account of Asoka, quotes the abovementioned prediction, and also mentions the fact that Asoka in his youth was named prince "Piyadáso."

The *Saddharmálaṅkāra*, which by some is supposed to be a Sinhalese version of the *Rasaváhini*, and by others its original, gives the following interesting and additional particulars, which are not found in any other work I have met with. It states that Asoka, on his birth, received the name of prince "Piyadása," "because his countenance was radiant as the polished surface of a mirror and pleased all beholders;"* "that when he held the Government of 'Avanti' under his father Bīndusára, he was known as prince 'Asoka,'"† That he was afterwards surnamed "Chandásóka," or "Asoka the Cruel," on account of his putting his brothers to death, and finally "Dharmásoka,"‡ or "Asoka the righteous," on his conversion to Buddhism, and becoming a zealous patron of religion.

L. DE Z.

* Vide selections from *Saddharmalankara*, p. 4.

† *Ibid*, p. 5.

‡ *Ibid*, p. 14.

ON THE ISLAND DISTRIBUTION OF THE BIRDS IN THE SOCIETY'S MUSEUM.

BY W. VINCENT LEGGE, R.A., F.Z.S.

LIST OF BIRDS IN THE MUSEUM ON 31ST MAY, 1873.

No.		No.	
1	SPILORNIS BACHA, <i>Daudin.</i>	4	YUNGIPICUS GYMNOPTALMOS, <i>Blyth.</i>
1	HALIAETUS LEUCOGASTER, <i>Gmel.</i>	4	CHRYSOCOLAPTES CHLOROPHANES, <i>Vieill.</i>
1	POLIOAETUS ICTHYAETUS, <i>Horsf.</i>	4	BRACHYPTERNUS CEYLONUS, <i>Forster.</i>
3	HALIAETUR INDUS, <i>Bodd.</i>	1	Do. PUNCTICOLLIS, <i>Mulh.</i>
1	MILVUS GOVINDA, <i>Sykes.</i>	2	CENTROPUS RUFI PENNIS, <i>Illiger.</i>
2	TINNUNCULUS ALAUDARIUS, <i>Gmel.</i>	3	POLYPHASIA FASSERINA, <i>Vahl.</i>
3	MICRONISUS SADIUS, <i>Gmel.</i>	1	SURNICULUS DICRUROIDES, <i>Hodson.</i>
1	ELANUS MELANOPTERUS, <i>Daudin.</i>	2	COCCYSTES JACOBINUS, <i>Bodd.</i>
1	CIRCUS SWAINSONII, <i>A. Smith.</i>	6	EUDYNAMIS HONORATA, <i>Linn.</i>
1	Do. CINERACEUS, <i>Montague.</i>	1	PHENICOPHAPS PYRHOCEPHALUS, <i>Forster.</i> [<i>don.</i>]
2	ATHENE CASTANEONOTA, <i>Blyth.</i>	3	ZANCIPTOSTOMUS VIRIDIROSTRIS, <i>Jerd.</i>
1	NINOX HIRSUTA, <i>Temm.</i>	2	NECTAROPILA ZEYLANICA, <i>Linn.</i>
4	EPHIALTES BAKKAMUNA, <i>Forster.</i>	4	ARACHNECHITRA LOTENIA, <i>Linn.</i>
1	SYRNIUM INDRANEE, <i>Sykes.</i>	1	DENDROPHILA FRONTALIS, <i>Horsf.</i>
3	CAPRIMULGUS ASIATICUS, <i>Latham.</i>	1	UPUA NIGRIPENNIS, <i>Gould.</i>
1	Do. ATRIPENNIS, <i>Jerdon.</i>	2	HEMIPUS FIGATUS, <i>Sykes.</i>
2	CYPSELUS BATASSIENSIS, <i>Gray.</i>	2	VOLVOICIVORA SYKESII, <i>Strickl.</i>
1	DENDROCHILIDON CORONATUS, <i>Tickl.</i>	3	GRAUCULUS LAYARDI, <i>Blyth.</i>
4	CORACIAS INDICA, <i>Linn.</i>	4	PERICROCOTUS FLAMMEUS, <i>Forster.</i>
3	HARPACTES FASCIATUS, <i>Forster.</i>	5	Do. PEREGRINUS, <i>Linn.</i>
3	PELAGOPSIS GURIAL, <i>Pearson.</i>	3	ARTAMUS FUSCUS, <i>Vieill.</i>
3	HALCYON SMYRNENSIS, <i>Linn.</i>	3	LANIUS CRISTATUS, <i>Linn.</i>
6	ALCEDO BENGALENSIS, <i>Gmel.</i>	4	TEPHRODORNIS PONDICERIANA, <i>Gmel.</i>
1	CERYLE RUDIS, <i>Linn.</i>	2	DISSEMURUS LOPHORRHINUS, <i>Vieill.</i>
3	MEROPS PHILIPPENSIS, <i>Linn.</i>	4	BUCHANGA LEUCOPYGIALIS, <i>Blyth.</i>
1	Do. VIRIDIS, <i>Linn.</i>	2	MYIALASTES CINEREO-CAPILLA, <i>Vieill.</i>
3	Do. QUINTICOLOR, <i>Vieill.</i>	1	LEUCOCERCA AUREOLA, <i>Lesson.</i>
2	TUCKERUS GINGALENSIS, <i>Shaw.</i>	7	TCHITREA PARADISI, <i>Linn.</i>
3	LORICULUS INDICUS, <i>Gmel.</i>	2	ALSEONAX LATIROSTRIS, <i>Raffles.</i>
1	PALAEORNIS ALEXANDRI, <i>Linn.</i>	4	CYORNIS JERDONI, <i>G. R. Gray.</i>
1	Do. TORQUATUS, <i>Bodd.</i>	3	PITTA BRACHYURA, <i>Jerdon.</i>
3	Do. ROSA, <i>Bodd.</i>	2	CHROCINCLA SPILOPTERA, <i>Blyth.</i>
1	Do. CALTHROPE, <i>Layard.</i>	1	ALCIPPE NIGRIFRONS, <i>Blyth.</i>
3	MEGALAIMA ZEYLANICA, <i>Gmel.</i>	2	DUMETIA ALBOGULARIS, <i>Blyth.</i>
4	Do. FLAVIFRONS, <i>Cuvier.</i>	2	DRYOCATAPUS FUSCICAPILLUS, <i>Blyth.</i>
1	XANTHOLEMA RUBRICAPILLA, <i>Gmel.</i>		
1	Do. INDICA, <i>Luth.</i>		

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| 2 POMATORHINUS MELANURUS, <i>Blyth.</i> | 1 ALAUDA GULGULA, <i>Franklin.</i> |
| 1 GARRULAX CENEREIFRONS, <i>Blyth.</i> | 2 OSMOTRERON BICINCTA, <i>Jerdon.</i> |
| 2 MALACOCERCUS STRIATUS, <i>Swains.</i> | 5 DO. POMPADOURA, <i>Gmel.</i> |
| 5 LAYARDA RUFESCENS, <i>Blyth.</i> | 2 CARPOTHAGA SYLVATICA, <i>Tickell.</i> |
| 3 HYPSSIPETES GANEESA, <i>Sykes.</i> | 2 TURTUR SURATENSIS, <i>Gmel.</i> |
| 3 CRINIGER ICTERICUS, <i>Strickl.</i> | 2 CHALCOPHAPS INDICA, <i>Linn.</i> |
| 5 IKOS LUTEOLUS, <i>Lesson.</i> | 3 GALLUS STANLEYI, <i>Gray.</i> |
| 3 PYCNONOTUS HÆMORRHOUS, <i>Gmel.</i> | 4 GALLOPERDIX BICALCARATA, <i>Forst.</i> |
| 1 RUBIGULA MELANICTERA, <i>Gmel.</i> | 1 ORTYGORNIS PONDICERIANA, <i>Gmel.</i> |
| 6 PHYLLOLORNIS JERDONI, <i>Blyth.</i> | 1 EXCALFACTORIA CHINENSIS, <i>Linn.</i> |
| 1 DO. MALABARICUS, <i>Lath.</i> | 4 TURNIX TAIGOOR, <i>Sykes.</i> |
| 1 IOBA ZEYLONICA, <i>Gmel.</i> | 2 CHARADRIUS FULVUS, <i>Gmel.</i> |
| 7 ORIOLUS CEYLONENSIS, <i>Bonap.</i> | 4 ÆGIALITES MONGOLICUS, <i>Pallas.</i> |
| 4 COPSYCHUS SAULARIS, <i>Linn.</i> | 1 DO. DUBIUS, <i>Scop.</i> |
| 3 KITTACINCLA MACRUMA, <i>Gmel.</i> | 3 LOBIVANELLUS INDICUS, <i>Bodd.</i> |
| 3 THAMNOBIA FULICATA, <i>Linn.</i> | 1 ŒDICNEMUS CREPITANS, <i>Temm.</i> |
| 4 CISTICOLA SCHÆNICOLA, <i>Bonap.</i> | 1 STREPSILAS INTERPRES, <i>Linn.</i> |
| 2 PRINIA SOCIALIS, <i>Sykes.</i> | 2 GALLINAGO STENURA, <i>Temm.</i> |
| 4 DRYMOIPAS VALIDUS, <i>Blyth.</i> | 3 RHYNCHÆA BENGALENSIS, <i>Linn.</i> |
| 1 PHYLLOSCOPUS NITIDUS, <i>Latham.</i> | 2 ACTITIS HYPOLEUCOS, <i>Linn.</i> |
| 3 CALOBATES SULPHUREA, <i>Beckst.</i> | 2 HYDROPHASIANUS CHIRURGUS, <i>Scop.</i> |
| 2 LIMONIDROMUS INDICUS, <i>Gmel.</i> | 1 PORPHYRIO POLIOCEPHALUS, <i>Lath.</i> |
| 2 BUDYTES VIRIDIS, <i>Gmel.</i> | 7 GALLINULA PHENICUBA, <i>Forster.</i> |
| 3 CORYDALLA RICHARDI, <i>Vieill.</i> | 1 GALLICREX CRISTATUS, <i>Lath.</i> |
| 1 DO. RUFULA, <i>Vieill.</i> | 1 PORZANA FUSCA, <i>Linn.</i> |
| 3 ZOSTEROPS PALPEBROSUS, <i>Temm.</i> | 2 RALLINA ZEYLONICA, <i>Gmel.</i> |
| 1 DO. CEYLONENSIS, <i>Holdsworth.</i> | 3 ARDEA PURPUREA, <i>Linn.</i> |
| 5 PARUS CINEREUS, <i>Vieill.</i> | 3 BUPHUS COROMANDUS, <i>Bodd.</i> |
| 2 CORVUS LEVAILLANTI, <i>Lesson.</i> | 3 ARDEOLA GRAYII, <i>Sykes.</i> |
| 3 DO. SPLENDENS, <i>Vieill.</i> | 1 BUTORIDES JAVANICA, <i>Horsf.</i> |
| 1 CISSA ORNATA, <i>Wagler.</i> | 3 ARDETTA FLAVICOLLIS, <i>Lath.</i> |
| 3 ACRIDOTHERES TRISTIS, <i>Linn.</i> | 3 DO. CINNAMOMEA, <i>Gmel.</i> |
| 4 EULABES RELIGIOSA, <i>Linn.</i> | 2 NYCTICORAX GRISEUS, <i>Linn.</i> |
| 7 PLOCEUS BAYA, <i>Blyth.</i> | 1 GOISACHIVS MELANOLOPHUS, <i>Raffles.</i> |
| 3 MUNIA UNDULATA, <i>Lath.</i> | 2 ANASTOMUS OSCITANS, <i>Bodd.</i> |
| 1 DO. MALACCA, <i>Linn.</i> | 2 DENDROCYGNA JAVANICA, <i>Horsf.</i> |
| 3 DO. STRIATUS, <i>Linn.</i> | 3 PODICEPS PHILIPPENSIS, <i>Bonn.</i> |
| 1 DO. KELAARTI, <i>Blyth.</i> | 1 STERNA NIGRA, <i>Linn.</i> |
| 1 ESTRELLA AMANDAVA, <i>Linn.</i> | 4 HYDROCHELIDON LEUCOPARCIA, <i>Natt.</i> |
| 5 PACEER INDICUS, <i>Jerd. and Shelby.</i> | 1 THALASSEUS CRISTATUS, <i>Stephens.</i> |
| 4 MIRAFRA AFFINIS, <i>Jerdon.</i> | 1 DO. BENGALENSIS, <i>Lesson.</i> |
| 2 PYRRHULANDA GRISEA, <i>Scop.</i> | |

THE large collection of birds which the Society possesses at the present time, and which the foregoing catalogue, numbering in all 154 different birds, fully testifies to, may perhaps be considered to possess sufficient interest as a public exhibition, and an important branch of the Museum, to warrant a few remarks on the distribution, throughout the Island, of the different species composing it. I therefore venture to submit for the Society's perusal the following notes, which are chiefly the result of four and-a-half years' labour among my feathered friends in Ceylon. I have also availed myself of the experience of Messrs. Layard and Kelaart, and of Mr. Holdsworth, in cases where they have recorded birds from parts which I, myself, have not visited. I regret to say that my knowledge of what birds in particular are located in the Eastern Province proper is very limited, and therefore I fear that these notes will contain but little information concerning either the residents in or migrants to that part. It is a district which I have as yet only touched upon from the north and south, but neither myself nor either of the abovenamed gentlemen have ever collected in or explored that extensive and wildest of all Ceylon regions—the Friar's Hood and False Hood ranges, and the immediate south-lying flats, known as the "Park Country." It is here that more new species await discovery at the hands of some enterprising naturalist, and when they are found they will, I am confident, possess the additional interest of being, like Mr. Bligh's newly-discovered *Arrenga* and my *Prionochilus*, analogous to Malayan and not to Indian forms. Setting aside the Eastern Province however entirely, the distribution of species in the other great divisions of the Island is exceedingly interesting, and demonstrates in a remarkable manner how closely vegetation and features of soil are affected by climate, and how birds in their turn are influenced in their choice of habitat by that vegetation and the natural resources of sustenance which it affords them. The north-western and south-eastern districts, or the country surrounding Mannár and

Hambantota, respectively, possess a similar avifauna, with the difference perhaps, that natatorial birds abound more in the latter than in the former, owing to the presence of large tanks in the Mágam and adjoining Pattus, but the list of insessorial birds in the two places is precisely the same: the great mountain zone districts are peculiar features lying as a dividing medium between them. Again, the damp hill-country of the south-west, and the vast forest-covered region of the north-east, lying between Anurádhapura and Trincomalee, possess the same birds, with the exception of one or two very local species, such as *Temenuchus senex* and *Prionochilus Vincens*, which are only located in the mountains of the former part; moreover, the south-western corner of the Island possesses scarcely anything in common with the adjacent lying hot and flat country of the south-east, the eastern slopes of the Kolonná and Morowak Kóralé mountains and their off-shoots, leading southwards to Mátara, acting as a barrier or dividing line beyond which, on either side, the typical forms of the two regions (*Temenuchus senex*, *Rubigula melanictera*, *Prionochilus Vincens*, &c., on the west, and *Pyrrhulaunda grisea*, *Temenuchus pagodarum*, *Sarciophorus bilobus*, &c., of the east) do not appear to pass. While on the subject of the south-west and its avifauna, it would be well to remark that it is somewhat noteworthy, that two species of "Ceylon" birds, *vide supra*, should only be found in that district, and this certainly would allow us to premise that others, as yet undiscovered members of our Fauna, may be confined solely to the hills of the Eastern Province. Lastly, there exists another region which, as the late Dr. Kelaart prophesied in his "*Prodromus Faunæ Zeylanica*" has proved to be "a distinct centre of creation" analogous to that of the correspondingly elevated zone of the Neilgherries in South India. I speak of Nuwara Eliya and its surrounding mountains. Doctor Kelaart referred generally to Zoology and Botany, but we have there, as far as birds even are concerned, three of the peculiar Ceylon species, *Merula Kinisii*, *Arrenga Blighi*, *Brachypteryx Palliseri*, and perhaps a fourth, *Ochronella Nigrorufa* (found also

on the Neilgherries), confined to the immediate vicinity of the sanatorium. Notwithstanding that this singular concentration of these restricted species to such a small area can be easily accounted for on the strength of their being peculiar to the Island, and the highest mountains about Nuwara Eliya being the only district of such an elevation, and therefore with the same cool climate, in the country, yet there is no parallel to it in the distribution of birds throughout the whole peninsular part of India, and it must therefore I think, be viewed as the most remarkable feature in the history of Ceylon birds. Students of our Ornithology are much indebted to Mr. Holdsworth, who, assisted by the most eminent Indian Ornithologists at home, has worked out, in his catalogue of Ceylon birds, published last year in the proceedings of the London Zoological Society, the right nomenclature of all our birds, and the history and authorship of all those species about which there was any doubt. He has shewn that several members of our old lists, such as *Yungipicus gymnoptalmos*, *Tephrodornis affinis* (Blyth), and *Grauculus Pussillus* (ibid), hitherto assigned to Ceylon only, are found in South India, and that one of our hill fly-catchers, *Euymias serdida*, Walden, on the other hand, as an inhabitant of the peninsula, is peculiar to this Island, and was hitherto confounded with *E. melanops*, Vigors; while again he has proved that a few species described as new by Layard and others, such as *Butalis Muttui*, *Zoothera imbricata*, are identical with the hitherto recorded from India, *Alseonax terricolor* and *Oreocincla Neilgherrienses*. It is a pity that this gentleman confined his labours and attention to the cultivated districts of the Western Province and the neighbourhoods of Mannár and Nuwara Eliya only, instead of exploring the Island to a greater extent, particularly in the south-west and east, and thereby acquiring a thorough knowledge of the distribution of our species; by so doing he would have rendered his catalogue much more valuable to the enquirer, and afforded much information as to where different birds were to be found. In the

following notes I have adopted Mr. Holdsworth's nomenclature, followed by Layard's and Kelaart's synonyms, used in the *Annals and Magazine of Natural History* for 1853-54, and the "*Prodromus Faunæ Zeylanica*" published in 1852.

1. *SPILORINS BACHA*, *Dandin*.—The Crested Serpent Eagle, the "Ceylon Eagle" of some writers; *Rājāli*, *Sinh*. In young plumage, *Spilornis Spilogaster*, *Blyth*—vide Holdsworth, *Catalogue Ceylon Birds*, P. Z. S. 1872, No. 13. *Hæmatornis Cheela*, Layard, *Annals Natural History*, 1853, page 99, volume 12; Kelaart, *Prodromus Faunæ Zeylanica*, page 114.

Distributed throughout the whole Island up to the highest parts of the Central Province; common in all the coffee districts, and both in low wooded and the hill country of the south-west; numerous in the neighbourhood of Trincomalee, and occurs throughout the Eastern and Northern Provinces, affecting marshes and the borders of large tanks; scarce in the dry districts of the south-east.

2. *HALIAETUS LEUCOGASTER*, *Gmelin*.—The white-bellied Sea Eagle, Grey-backed Sea Eagle. *Pontoætus Leucogaster*—Layard, *Annals Natural History*, 1853, volume 12, page 100; Kelaart, *Prodromus Faunæ Zeylanica*, page 112.

Distributed round the whole coast of Ceylon, affecting chiefly mouths of large rivers, brackish lakes, salt lagoons, and large inland back waters; most numerous in the Hambantota district, and on the chain of lagoons and lakes between Trincomalee and the Jaffna Peninsula; common at Jaffna and down the west coast to Puttalam; scarce in the south-west, occurring at the mouths of rivers and on brackish lagoons in that part; extends some distance up large rivers, but it is not found on inland tanks.

3. *POLIOAETUS ICHTHYAÆTUS*, *Horsf*.—The white-tailed Sea Eagle. *Pontoætus Ichthyaætus*.—Layard, *Annals Natural History*, page 101, 1853; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

Numerous about tanks in the Eastern Province, on the north-eastern coast, and in the Vanni; frequents the salt lagoons and estuaries to the north of Trincomalee; occurs on the north-west coast (Holdsworth's *Catalogue Ceylon Birds*), rare on the south-east coast, but observed in the Hambantota and Kataragama country. This species is nowhere so abundant as *P. leucogaster*.

4. *HALIASTUR INDIUS*, *Bodd*.—Brahminy Kite; Brown-backed Kite; *Rājāli*, *Sinh*.

Abundant about most of the bays, mouths of rivers, salt lagoons, and brackish waters round the whole Island, affects in particular Galle

and Trincomalee harbours and the Jaffna lake, though not so numerous in the latter part as *Milvus Govinda*; frequents paddy lands in many districts far inland, and breeds sometimes as far as thirty or forty miles up large rivers.

5. *MILVUS GOVINDA*, *Sykes*.—Pariah Kite.

Numerous only about the Jaffna peninsula and down the west coast as far as Kalpiṭiya and Chilaw districts; extends sparingly to the south; pairs now and then seen in Galle and Mátara districts, but I have not observed it on the south-east coast. Affects Trincomalee harbour in the south-west monsoon, but leaves in the north-east.

Note.—It is strange that this Kite should be comparatively local in Ceylon, when it is so widely distributed round the Indian coast. I have seen it in no part of the Island so abundant as about the town of Jaffna.

6. *TINNUNCULUS ALAUDARIUS*, *Gmelin*.—Kestrel.

The Kestrel, which is a winter visitor to Ceylon, is found all round the coast wherever there are rocky cliffs, about which it always remains, roosting on the same spot the whole season. I did not observe it on the south-east coast, but it no doubt affects that part as well as Trincomalee, Jaffna, and all round the west coast to Galle, where an individual takes up its abode each year regularly at the high corner of the ramparts overlooking the sea. Arrives about first week in October, and leaves again as late as the 20th April in the extreme south. Layard says of this bird, *Annals Natural History*, 1853, page 102, "common in all open plains throughout the Island which are dotted with jungle." I conclude he means open plains along the sea border, as I have never observed it far inland; the only district where I should imagine it would be found at any distance from the sea, would be the Northern Province, south of Jaffna, and in the upper part of the Vanni.

7. *MICRONISUS BADIUS*, *Gmelin*.—The "Shikra," Indian Sparrow-hawk; *Accipiter Badius*—Layard, *Annals Natural History*, 1853, page 104; Kelaart, *Prodromus Faunæ Zeylanica*, page 115.

Common throughout the low country on both sides of the Island; abundant in the north-east of the Province and in the south; extends into the Central Province up to 4,000 feet; occurs frequently in Dumbura.

8. *ELANUS MELANOPTERUS*, *Daud*.—The black-shouldered Kite; Layard, *Annals Natural History*, 1853, page 104.

Western Province, hill district of south-west and flat country of the south-east; occurs at Bópé and throughout the Rayigam and

Pasdun Kóralés; frequents citronella grass estates and open lands in the Galle district, more numerous however in the Kataragama country, and probably frequent throughout the Eastern Province. I did not observe it in the north-east, though Layard, *loc. cit.*, records it from Jaffna as one of our rarest Raptores.

9. *CIRCUS SWAINSONII*, *A. Smith*.—The Pale Harrier; Swainson's Harrier. Layard, *Annals Natural History*, 1853, page 104.

Local in distribution, common in parts. In the Southern Province on large tracts of paddy land and open hill sides near Galle, in parts of Tangalla and near Hambantota, and round the south-east coast generally; in the north-west and about Trincomalee, where it is common.

Note.—The Harriers, which are all winter visitants to this country, arrive in September mostly in young plumage, and are more numerous some years than others.

10. *CIRCUS CINERACEUS*, *Mont*.—Montague's Harrier. - Layard, *Annals Natural History*, 1853, page 105.

Inhabits open bushy plains in dry parts of the country, differing in its choice of habitat from the foregoing species, which frequents by choice marshy and paddy lands in company with *Circus Œruginosus*. Found about Colombo, but is rare; more numerous on the south-east coast, tolerably frequent in the Kataragama district.

11. *ATHENE CASTANEONOTA*, *Blyth*.—The Chesnut-winged Owl. *Athene Castanotus*, *Blyth*—Layard, *Annals Natural History*, 1853, page 105; also Kelaart, *Prodromus Faunæ Zeylanica*, page 110.

This little owl, which is our only raptorial bird peculiar to the Island, is local in its distribution. Inhabits both low and high country; have seen it in Upper Dimbula; common in the Knuckles district, where it is found about mountain streams at sunset; numerous in the south-west, particularly up the Gindurah; found about Colombo at times, frequenting also the Negombo districts. Recorded from Nuwara Eliya (Kelaart, *Prodromus Faunæ Zeylanica*, *Natural History of Nuwara Eliya*.)

12. *NINOX HIRSUTA*, *Temm*.—The brown Hawk-owl. *Athene Scutellata*, *Gray*—Kelaart, *Prodromus Faunæ Zeylanica*, page 110. *A. Scutellata*, *Raffles*—Layard, *Annals Natural History*, 1853, page 106.

This is the rarest owl. Found in the wooded districts round Bó pé and Avisáwélla, also in the neighbourhood of Puttalam. I am unable to say whether it is found in the hills, but I have seen it once in the wooded country of the south-west.

13. *EPHIALTES BAKKAMUNA*, *Forster*.—The little-eared Owl. *Ephialtes Lempigii*, *Horsf.*—Layard, *Annals Natural History*, 1853, page 106; Kelaart, *Prodromus Faunæ Zeylanica*, page 116.

Numerous throughout all the low country, abundant in the neighbourhood of Galle; common round Colombo, also in the north; extends to considerable elevation in the hills. Frequents rows of trees in towns, church steeples, also bamboo thickets and low jungle, native gardens, &c.

14. *SYRNIUM INDRANEE*, *Sykes*.—The brown Wood Owl. *Baça Muna*, *Sinh.*

Affects forest (*Múkalána*) in the low country and in the hills; ranges up to 5,000 feet in Central Province; found in the forests near *Haywella* in the Western Province, also in all forests of the south-west of the Island; frequents the low jungle of the *Mannár* district. (*Holdsworth's Catalogue Ceylon Birds*, 1872, No. 27.)

Note.—It is as difficult to define accurately the range of *Strigidae* and to note the particular districts they affect most, as it is to acquire a thorough knowledge of their economy. Their nocturnal habits lead to their being passed over in some instances by all but the most diligent observers, particularly if their notes are not well known. Until the past few years the Forest Eagle Owl of the South of India (*Hulua Pectoralis*, *Jerdon*) which has, of course, always been resident in this island, was not known to inhabit it, but since Mr. Bligh procured his specimens in the Central Province, a good many of the species have been either shot or seen. I met with it in the great forests of the north-east last January, and find that it inhabits the higher "*Múkalána*" all throughout the south-west.

15. *CAPRIMULGUS ASIATICUS*, *Latham*.—The Indian Night-jar.

Abundant in the scrubby country along the sea border at *Trincomalee*, also in all similar localities on the north and west coast, for instance, in the *Cinnamon Gardens* near Colombo; not so plentiful as the next species in the south; very plentiful in the jungles of *Hambantota* and in the *Múgam Pattu*.

16. *CAPRIMULGUS ATRIPENNIS*, *Jerdon*.—The black-winged Night-jar. *Bassa*, *Sinhalese*, for this family as well as for small Owls. *Caprimulgus mahrattensis*, *Sykes* (erroneously)—Layard, *Annals Natural History*, 1853, page 166; Kelaart, *Prodromus Faunæ Zeylanica*, page 117. Vide *Holdsworth, Catalogue Ceylon Birds*, No. 46.

Numerous in the low country and subsidiary hill districts of the south-west (notably round *Wakwella* and *Baddegama*), in the

low jungles of the Hambantota and Kirinda country, and tolerably plentiful in the north-east near Trincomalee; occurs sparingly in the Western Province, and almost absent from the North. (Layard, *loc. cit.*)—I presume he speaks of the Jaffna district.

Note.—This species, unlike the foregoing, perches much on trees; the male when uttering at sunset the remarkable note, so much heard in the south, is always perched on a branch of a tree.

17. *CYPSELUS BATASSIENSIS*, *Gray*.—The Palm Swift. *Wahælayna*, *Sinh.* *Cypselus* "Balassiensis," *Gray*—Layard, *Annals Natural History*, 1853, page 167. Kelaart, *Prodromus Faunæ Zeylanica*, page 117.

Equally numerous in all parts of the country, and extending into the hills to the elevations of Nuwara Eliya and Horton Plains. I observed it less numerous in the north-east monsoon about the neighbourhood of Kataragama than elsewhere, which may have been owing to their having been collected in other parts to breed. It ranges throughout the Morowak Kóralé, and other southern hills. Kelaart omits it from his list of Nuwara Eliya birds, *Prodromus Faunæ Zeylanica*.

18. *DENDROCHILIDON CORONATUS*, *Tickell*.—The Crested Swift. *Macreptenyx*, *Swainson*; *M. coronatus*—Layard, *Annals Natural History*, 1853, page 167; Kelaart, *Prodromus Faunæ Zeylanica*, page 117.

Resident all the year round in the south, but not always affecting the same localities; migratory to the Western Province in the north-east monsoon, occurs about Trincomalee at the same season, probably more numerous there in the other monsoon. Abundant generally in the vicinity of Galle; affects precipitous hill-sides and open clearings where there are dead trees, on which it perches much.

19. *CORACIAS INDICA*, *Linn.*—The Roller. "Jay" of Europeans.

Distributed throughout the low country, but very local in its habitat. I have never met with it in any part of the south-western hill-country. Most numerous about Jaffna and the "peninsula," and in the open country near the tanks throughout the north coast from Trincomalee to Anurádhapura. Near Colombo it occurs at Bópé, Pora, and many parts of the Rayigam Kóralé.

20. *HARPACTES FASCIATUS*, *Forster*.—The Trogon. *Harpactes fasciatus*, *Linn.*—Layard, *Annals Natural History*, 1853, page 171.

Throughout the whole Island where there is primeval forest or "Múkalána;" abundant in such spots in the Rayigam Kóralé, being found near Haywella, within twelve miles of Colombo; in all

the forests of the Gangaboda and Hinidum Pattus and Kukulu and Morowak Kóralés, as regards the south of the Island; throughout all the coffee districts and highest hills of the Central Province, and in the great forests between the north road and Trincomalee.

21. *PELAGOPSIS GURIAL*, *Pearson*.—The Cape King-fisher, Buff-breasted King-fisher. Maha Pilihudua, *Sinh.*; vide Holdsworth's Catalogue Ceylon Birds, P.Z.S. 1872, No. 54; Halcyon Capensis, *Linn.*—Layard, Annals Natural History, 1853, page 171; Kelaart, Prodrömus Faunæ Zeylanica, page 119.

Throughout the low country wherever there is water. In the Western Province it is found about Bolgoda Lake and up the Kalu Ganga; in the Southern Province it is abundant on the Gindurah and Nilwelle rivers, extending to the foot of the hills; numerous on all tanks of the Eastern Province and about all the swamps and inland waters of the Northern Province, from Trincomalee to Anurádhapura; abundant about Batticaloa, according to Layard.

22. *HALCYON SMYRNENSIS*, *Linn.*—The Smyrna King-fisher, White-breasted King-fisher. Pilihudua, *Sinh.*—Layard, Annals Natural History, 1853, page 172.

Common throughout the low country, extending into the hills to 4,000 feet, and Kelaart includes it in his Nuwara Eliya list of birds (Prodrömus Faunæ Zeylanica); abundant in the Western and Southern Provinces, occurring in the Morowak Kóralé sparingly, not so numerous in the south-east.

23. *ALCEDO BENGALENSIS*, *Gmelin*.—The Indian King-fisher, Little King-fisher. Pilihudua, *Sinh.*

Distributed throughout the whole Island, extending into the Central Province to the plains of Nuwara Eliya, very abundant about paddy fields, rivers and streams in the Western and Southern Provinces, and less numerous in the south eastern district; plentiful in the Northern Province and in the neighbourhood of Trincomalee; common close to Galle; believed may at times be seen on the rocks at the entrance to the Dutch Canal; occurs in Colombo lake in numbers.

24. *CERYLE RUDIS*, *Linn.*—The Pied King-fisher—Layard, Annals Natural History, 1853, page 172.

Numerous on canals, streams, and the stiller parts of rivers in the Southern Province, extending inland to the foot of the hills; tolerably frequent in the Western Province, at Kalutara, near Bentota, on Bolgoda lake, and the like spots; found on the salt lagoons of the Hambantota and Trincomalee districts. In the

south it is particularly numerous on the Gindurah as far up as the "Haycock."

25. *MEROPS PHILIPPENSIS*, *Linn.*—The Blue-tailed Bee-eater. "Fly-catcher" of Europeans. Layard, *Annals Natural History*, 1853, page 173. Kelaart, *Prodromus Faunæ Zeylanica*, page 119.

Migratory to Ceylon, arriving at the beginning of September in the north, and reaching the south about the middle of that month. Spread throughout the Central Province up to 6,000 feet, at which elevation I have found it numerous near Pusselláwa and in the Knuckles; exceedingly abundant throughout the low country of the south-west and about the Fort at Galle; scarce in the Morowak Kóralé, and not plentiful in the south-east; tolerably numerous in parts of the Trincomalee country and in the extreme north. Kelaart records it from Nuwara Eliya in his list from that part. It is rare about Colombo. Leaves the south about the 1st of April, though stragglers remain some years as late as the middle of that month. Holdsworth also records it as very numerous at Aripo; says it leaves the north during the same month.

26. *MEROPS VIRIDIS*, *Linn.*—The Green Bee-eater.

This charmingly tame little bird is partial to certain districts of the low country, and does not extend into the hills. It prefers the dry and hot portions of the Island, is absent from the south-west, but exceedingly abundant from Taygalla round the south-east and east coasts to Trincomalee and the extreme north. It is more numerous in the neighbourhood of Hambantota than about Trincomalee, and is, I imagine, resident in that district throughout the year. Holdsworth says it is abundant at Aripo, and mentions it being seen sometimes about Colombo. I have not remarked it there.

27. *MEROPS QUINTICOLOR*, *Vieill.*—The Chesnut-headed Bee-eater.

Very local in its distribution. Affects the borders of rivers, in particular, in the south-west up to thirty or forty miles from the sea, but does not extend to an elevation of more than 1,000 feet. Notably numerous on the Gindurah, from where the banks become hilly to beyond the Haycock, also on the Kaluganga to Ratnapura.

Note.—I confess I cannot look on this as a strictly hill species; it is very partial to rivers with hilly banks, and follows them up into or just to the foot of the mountains; although it has been found in the vicinity of Kandy, it must be far scarcer there than on the rivers of the south-west, where it breeds in numbers. When Layard says, *Annals Natural History*, 1853, page 174, "Whilst the two former frequent low open plains and are rarely,

if ever, seen in the elevated districts, the present species on the contrary affects the hilly forest region;" I cannot but think that he must have been mistaken in his identification. These remarks of a certainty do not apply to *M. Philippinus*, which I have found on all elevated patanas from the Knuckles to Upper Dimbula, in which localities I have never seen a sign of the Chestnut-headed bird. I do not think it extends above the elevation of Kandy. I have never met with it in the south-east, though it is found sparingly near the borders of jungle in the Trincomalee districts. Holdsworth records it in his catalogue from near Kandy.

28. *TUCKUS GINGALENSIS*, *Shaw*.—The Ceylon Horn-Bill. "Toncan" of Europeans. *Këndétta*, *Sinh.*; *Buceros* apud, *Shaw*. *Buceros Gingalensis*, *Shaw*.—Layard, *Annals Natural History*, 1854, volume 13, page 260. Kelaart, *Prodromus Faunæ Zeylanica*, page 126.

Affects all forests on the south-west and north-east, the high jungle of the Morowak and Kukulu Kóralés and all parts of the Central Province up to 2,000 feet, likewise the jungle in the north-west, according to Holdsworth; but I did not observe it in the analogous district of Kataragama, though it is possible it inhabits the forests along the rivers of that part. It is numerous near Galle in the Kottowe Múkalána and in the great Opaté and Uđugama, as well as in the Morowak Kóralé and Hinidum forests; also common in the jungles between Anurádhapura and Trincomalee, and probably in the wild country between Ratnapura and Avisáwella.

29. *LORICULUS INDICUS*, *Gmelin*.—Ceylon Lorikeet. Girawa Malitchia, *Sinh.* Vide Holdsworth's *Catalogue Ceylon Birds*, P. Z. S., No. 66; *Loriculus Asiaticus*, *Lath.*—Layard, *Annals Natural History*, 1854, page 261; Kelaart, *Prodromus Faunæ Zeylanica*, page 127.

Very abundant in the south-west (which part is its head quarters) in the cocoanut districts throughout all the cultivated parts of the interior, and also in the forests at certain seasons when various species of timber trees are in flower; common in the Central Province, about wooded patanas in the Pusselláwa, Dumbara, Knuckles, and other districts of similar elevation. Occurs in the Pasdun and adjoining Kóralés in the Western Province, but not so abundantly as in the south. Layard traced it as far east as Hambantota, but I believe it is absent from the country beyond that, as also from the Eastern Province. I did not meet with it in the districts between Anurádhapura and Trincomalee, where I found so many of our peculiar Ceylon birds (*vide Note* on *Phænico-phous phyrrocephalus*), but I should not be surprised if it were added to my list from that locality before long.

30. *PALÆORNIS ALEXANDRI*, *Linn.*—The red-shouldered Parokeet. Loku Girawá, *Sinh.*—Layard, *Annals Natural History*, 1854, Volume 13, page 262.

Appears to be chiefly confined to the east coast, always abundant in the Batticaloa country, and at seasons near Trincomalee; occurs as a straggler in the low country from Pánaduré down to Mátara, but I did not meet with it in the south-east.

31. *PALÆORNIS TORQUATUS*, *Bodd.*—The Rose-winged Parokeet. Rana Girawá, *Sinh.* *Palæornis torquatus*, *Briss.*—Layard, *Annals Natural History*, 1854, page 262; Kelaart, *Prodromus Faunæ Zeylanica*, page 127.

Very abundant round Trincomalee, particularly about Tampalakámam; numerous near Hambantota and about Tangalla; very abundant down north-west coast (Puttalam, Chilaw, &c.) According to Layard, this Parokeet frequents maritime districts for the most part. I have not met with it in the interior, it is a low-country bird.

32. *PALÆORNIS ROSA*, *Bodd.*—Purple-headed Parokeet. *Palæornis Cyannaphalus*, *Linn.*—Layard, *Annals Natural History*, 1854, page 264. Kelaart, *Prodromus Faunæ Zeylanica*, page 127.

South-western and central hill districts. Common all through the low wooded country of the south-west, up to highest parts of Morowak Kóralé, where however it is less numerous than at lesser elevations; abundant about the patanas of the Knuckles, Pusselláwa, and Deltota districts, and in fact all through the Central Province up to 3,000 feet. Absent from the south-east.

33. *PALÆORNIS CALTHROPÆ*, *Layard.*—Ceylon Parokeet. Alloo Girawá, *Sinh.*

Note.—Kelaart seems to have reversed the English names of this and the last species (*Prodromus Faunæ Zeylanica*, page 127) when he calls this bird the "Purple-headed Parokeet," and the former the "Ashy-headed Parokeet."

Ranges from the hills north of Kandy to the subsidiary ranges at the Upper Gindurah, down to 700 or 800 feet above the sea; this latter is the lowest point at which it is found. Common round Kandy, in the valley of Dumbara, and about the lower patanas in the Knuckles and Pusselláwa districts; exceedingly abundant in the Sihha Rájah forests and on the south of the Kukulu Kóralé (the head-quarters of so many "Ceylon" birds), and tolerably abundant in parts of the Morowak Kóralé. Kelaart notes it at Nuwara Eliya (*List of Nuwara Eliya Birds*, *Prodromus Faunæ Zeylanica*.)

34. *MEGALAIMA ZEYLANICA*, *Gmelin*.—The Ceylon Barbet. Kottóruwá, *Sinh.*; *Megalaima caniceps*, *Frank*, (the Indian species);—Layard, *Annals Natural History*, 1854, page 446.

Very abundant throughout most parts of the low-country, more so in the south than the north however; extends up to about 2,000 feet in the Central and Southern Provinces. I did not find it in the Kataragama districts, nor did Mr. Holdsworth in the north-west; it is however tolerably numerous in the north-eastern jungles between the Central road and Trincomalee. It is more abundant some little distance inland from the vicinity of Colombo than anywhere else.

35. *MEGALAIMA FLAVIFRONS*, *Cuvier*.—The yellow-fronted Barbet; Kottóruwá, *Sinh.*

Southern, Western, and Central Provinces. Occurs in the Rayigam Kóralé, some little distance from Colombo, and ranges into the Central Province up to 3,000 feet, being particularly abundant in all the coffee districts and patanas of that part; but, common as it is there, it is nowhere so numerous as in the Kukulu Kóralé, Sípha Rájah, and Uđugama forests of the Southern Province. Those magnificent reserves of timber too low for coffee cultivation, and which sweep up and down the hills and valleys of that part, stretching away for miles in an unbroken sea of green, without scarcely a kurakkan clearing to arrest the eye, are the choice resorts of most of our peculiar Ceylon species, and there they are found in greater abundance than elsewhere. *M. Flavifrons* inhabits all the hills on the banks of the Gindurah down to Kottowe forest, ten miles from Galle.

36. *XANTHOLEMA INDICA*, *Lath.*.—The red-breasted Barbet, "Copper-smith" of Europeans; *Megalaima Philippensis*, *Brisson*.—Layard, *Annals Natural History*, 1854, page 447; Kelaart, *Prodromus Faunæ Zeylanica*, page 127.

Very abundant throughout the north, extending beyond Trincomalee towards Batticaloa on the east, and down to the forests between Kurunégala and Puttalam on the west. It is rare in the latter district and very numerous in both jungle and cultivated country between the Central road and Trincomalee. Holdsworth records it as common at Aripu.

37. *XANTHOLEMA RUBRICAPILLA*, *Gmelin*.—The red-headed Barbet, "Copper-smith" in the Western Province. *Megalaima rubricapilla*, *Gmelin*.—Layard, *Annals Natural History*, 1854, page 448; Kelaart, *Prodromus Faunæ Zeylanica*, page 127.

Most parts of the low-country, except in the dry and hot districts of the south-east and north-west, extending into the hills to about 1,000 feet. Layard records it from Batticaloa and Jaffna. The

Western and Southern Provinces are however its head quarters, in all districts of which it is exceedingly abundant; occurs throughout the wooded country of the north-east, but is not plentiful there.

38. *YUNGIPICUS GYMNOPTHALMOS*, *Blyth*.—The Pigmy Wood-pecker. Layard's Wood-pecker. *Picus Gymnophthalmos*, *Blyth*.—Layard, *Annals Natural History*, 1854, page 448. Kelaart, *Prodromus Faunæ Zeylanica*, page 128.

Western and Southern Provinces. In the Colombo district it is found some little distance inland, particularly about the wooded country round Hapwella; in the Southern Province it is more numerous, and affects all the low hill-country up to 2,000 feet in the Morowak Kóralé. In the Central Province I have traced it up to 2,000 feet in the Pusselláwa coffee districts.

39. *CHRYSOPHLEGMA CHLOROPHANES*, *Vieill*.—The Southern Yellow-naped Woodpecker; *Gecinus Chlorophanes*, *Vieill*.—Layard, *Annals Natural History*, page 448; Kelaart, *Prodromus Faunæ Zeylanica*, page 128.

Sparingly distributed throughout the north-east, west, and south-west of Ceylon, and extending into the hills, where Kelaart procured it as high as Nuwara Eliya. Found within ten miles of Colombo; tolerably frequent up the valley of the Gindurah, and rare in the north-east near Trincomalee. It most likely affects the Anurádhapura, Vanni, and the country to the east of the central mountain zone.

40. *BRACHYPTERNUS CEYLONUS*, *Forster*.—The Ceylon red Woodpecker; Kéralá, *Sinh*.

Widely distributed throughout the low-country of the southern half of the Island and in the north-east, and extending into the hills up to 3,000 feet or more in the Pusselláwa and Knuckles districts. The headquarters of this Woodpecker are from a little south of Colombo round the south-west to Má tara; in this locality it is exceedingly abundant, especially in the cocoanut lands of the maritime districts. I did not observe this species as frequent in the Morowak Kóralé as I should have expected.

41. *BRACHYPTERNUS PUNCTICOLLIS*.—The Lessen Golden-backed Woodpecker. Vide Holdsworth, *Catalogue Ceylon Birds*, P. Z. S., 1872, No. 73, *bis*.

Jaffna peninsula and Vanni district, and in the maritime districts of the north-east. I found this Woodpecker near the sea coast in the neighbourhood of Trincomalee, and likewise in the forests between the Central road and that place; it is nowhere common, unless the bird mentioned by Layard under the name of *B. Aurantius*, as being so numerous in the Jaffna peninsula, be this species.

Note.—Mr. Holdsworth says with justice, *loc. cit.*: “A further examination of the golden-backed Woodpeckers of Ceylon appears desirable, as the species generally met there is more likely to be *B. Puncticollis*, common in Southern India, than *Brachypternus Aurantius*, which has a more northerly range.” I think that it is extremely probable that future investigation will shew that the Jaffna bird, spoken of by Layard, as so numerous there, is the former species and not the latter, as noted in his Catalogue, *Annals Natural History*, 1854, page 448, under the name of *B. Aurantius*. I received two specimens from Doctor Ondaatje in 1870, which were shot in the peninsula, and presented by him to the Society's Museum, and these proved to be *B. Puncticollis*, and not *B. Aurantius*.

42. *CENTROPUS RUFIPENNIS*, *Illiger*.—The red-winged Ground Cuckoo, “Jungle Crow.” *Eti-kukulá, Sinh.* *Centropus Philippensis*, *Cuvier*.—Layard, *Annals Natural History*, 1854, page 450. Kelaart, *Prodromus Faunæ Zeylanica*, page 128.

Numerously distributed in the low-country, and extending up to 3,000 feet in the central zone and in the Morowak Kóralé. Kelaart has it in his list of Nuwara Eliya birds (*Prodromus Faunæ Zeylanica*.) This Cuckoo is specially numerous throughout the Western Province, among the low wooded hills and cultivated lands of the south-west, and in the maritime districts of the north-east. Holdsworth found it once even in the north-west about Aripu. It is also an inhabitant of the jungles on the south-east coast.

43. *POLYPHASIA PASSEBINA*, *Vahl*.—The Plaintive Cuckoo. *Cuculus apud, Blyth*, in his Catalogue, *Birds in Asiatic Society's Museum*. *Cuculus tenuirostris, Gray*.—Layard, *Annals Natural History*, 1854, page 453; Kelaart, *Prodromus Faunæ Zeylanica*, page 129.

Migratory to Ceylon, appearing, according to Layard, about Jaffna in February, and in the north-east (about Aripu), according to Holdsworth, in January. They were however plentiful in the neighbourhood of Trincomalee in October last; so that they would appear to frequent the eastern side of the Island at an earlier date than the entrance north. Particularly abundant in the Northern and Eastern Provinces and south-eastern districts; frequents the *Euphorbia* jungles about Hambantota in numbers. It is rare in the south-west and likewise in the Western Province.

44. *SURNICULUS DICRUROIDES*, *Hodgson*.—The Drongo tailed Cuckoo. Omitted from both Layard and Kelaart's lists.

Inhabits inland jungles in the Western and Northern Provinces (Trincomalee district), and has been procured in the lower hills

near Kandy, (Holdsworth, Catalogue Ceylon Birds.) I have not met with it either in the south-western hills or in the low-country of that part; but it probably occurs on the south-east coast in the jungles there. It occurs rarely in all these localities. Also found as near Colombo as Kótté, and has been procured in several places in the Héwágam Kóralé and in the Kurunégala district. All examples that have been brought to me, or that I have myself shot, have occurred in the north-east monsoon. If it is resident in Ceylon, which I doubt, it is most probably migratory from the eastern side during that season.

44 bis. COCCYSTES JACOBINUS, *Bodd.*—The Crested Cuckoo. *Oxylophus Serratus*, *Spars.*—Kelaart, *Prodromus Faunæ Zeylanica*, page 128. *Oxylophus Melanoleucos*, *Gmelin.*—Layard, *Annals Natural History*, 1854, page 451.

Abundant in the north and south-east, where the country is covered with low jungle; sparingly distributed through the low-country of the south-west; occurs in the Trincomalee district in the north-east monsoon; it is decidedly migratory to the south-west during that season. It extends into the hills, being found in Dumbara.

45. EUDYNAMIS HONORATA, *Linn.*—The Koel; Kohá, Kavaðikohá, *Sinh.* *Eudynamis Orientalis*, *Linn.*—Layard, *Annals Natural History*, 1854, page 451; Kelaart, *Prodromus Faunæ Zeylanica*, page 129.

Very numerous in the south-west, where it is resident all the year round; common in the Hambantota and Trincomalee districts during the north-east monsoon; tolerably plentiful in the Western Province, where I have procured it in the south-west monsoon not far from Colombo. I am not aware that this species extends to any considerable elevation into the hills.

Note.—Holdsworth says (Catalogue Ceylon Birds, No. 88) that he never met with this bird after April, and that he believes it to be “a true migratory bird.” This, as it appears from the above distribution, is erroneous. I have shot it in the Galle district at the end of June, and seen it during the whole of the south-west monsoon. It is possible that it may, like some few of our birds, notably *Dendrochelidon Coronatus* and *Tephrodorior Pondiceriana*, migrate from the south to the north of the Island at certain seasons.

46. PHENICOPHÆUS PYRRHOCEPHALUS, *Forster.*—The red-faced Malkoha. Mal Këndettá, *Sinh.*

This rare and beautiful bird I have discovered lately to have a much more extended range in Ceylon than has hitherto been supposed. It inhabits the high tree jungles and forests situated some distance

inland in the Western Province, those of the south-west from Baddégama to the foot of the hills, and the vast stretches of timbered country between the Northern road and Trincomalee. I have never seen or heard of any examples of this Cuckoo from the Central Province or southern hills, and am therefore of the opinion that it is exclusively confined to the low-country.

Note.—The discovery that I made last January of this and other Ceylon birds hitherto only recorded from the Southern and Central Provinces, such as *Oreocincla spiloptera*, *Chrysocolaptes Stricklandi*, *Drymocataphus fuscicapillus*, and the present species, in the northern forests between Anurádhapura and Trincomalee, very agreeably surprised me, and it only shews how imperfectly the more remote parts of the Island have been worked, and how much information as regards some peculiar Ceylon birds there is yet in store for the persevering naturalist.

47. *ZANCILOSTOMUS VIRIDIROSTRIS*, *Jerdon*.—The green-billed Malkohá. *Mal-kohá, Sinh.*—Layard, *Annals Natural History*, 1854, volume 13, page 453; Kelaart, *Prodromus Faunæ Zeylanica*, page 129.

Widely distributed throughout the low-country; tolerably frequent in the south-west in low, thick, scrubby jungle near the sea (Watering Point, &c.); abundant in the districts of the south-east, also in the maritime districts near Trincomalee, and, according to Holdsworth, in the neighbourhood of Aripu and Mannár. It occurs, but not very frequently, in the Western Province.

48. *NECTAROPHILA ZEYLONICA*, *Linn.*—The yellow-breasted Honey-eater. "Sunbird," "Humming bird" of Europeans; *Leptocomo* apud Cabanis, *Nectarina Zeylonica*, *Linn.*—Layard, *Annals Natural History*, 1853, page 175; Kelaart *Prodromus Faunæ Zeylanica*, page 119.

Found in abundance in all parts of the Island (except the north-west, where Holdsworth and Layard did not observe it) up to 4,000 feet in the Central Province. Most abundant in the Western and Southern Provinces; tolerably numerous all throughout the north-east up to Jaffna; found on all patanas of the coffee districts, and frequents the forests of the low-country when certain trees are in flower.

Note.—Layard, *loc. cit.*, remarks that *Nectarina minima* replaces this species in the north. It is not clear what part he writes of, except it be the north-west. I did not meet with it anywhere in the Trincomalee district, nor have I even been fortunate enough to procure a specimen in Ceylon, so that I imagine it is very rare. *N. Zeylonica* is common enough about the Naval Port.

49. *ARACHNECHTHRA LOTENIA*, *Linn.*—The Long-billed Honey-eater, Purple Honey-eater, "Humming bird" of Europeans.

Equally widely distributed with the above, but not so common in the hills; abundant in the Western and Southern Provinces; not so numerous in the Hambantota country or in the north-east.

Note.—It is singular that the other species of this genus, *A. Asiatica*, should be almost absent from the south-west, where its place is taken by the last named, when it is so common on either side of that district, viz., in the Western Province and in the south-east.

50. *DENDROPHILA FRONTALIS*, *Horsf.*—The Creeper.—Layard, *Annals Natural History*, 1853, volume 12, page 176.

Distributed throughout all the hill districts, from Nuwara Eliya, where Kelaart and Holdsworth procured it, to the low-country, in which it occurs sparingly and at uncertain times. It is very common in the Udugama and Morowak Koralé forests as well as in the central mountains.

51. *UPUPA NIGRIPENNIS*, *Gould.*—The Hoopoe. *Upupa Senegalensis*, *Swains.*—Layard, *Annals Natural History*, 1853; page 174; Kelaart, *Prodromus Faunæ Zeylanica*, page 119.

Abundant in the north-west (Aripu district) in the winter months, according to Holdsworth; common in the Jaffna peninsula, where I found a pair breeding in January; abundant in the Kataragama district in the north-east monsoon, where it frequents the edges of the scrubs surrounding the salt lakes. It is rare in the Western Province.

52. *HEMIPUS PICATUS*, *Sykes.*—The little Pied Shrike.

Distributed throughout the low-country of the Western, Southern, and part of the Northern Provinces, and likewise extending into the hills of the Central Province to the highest altitudes. The only part of the low-country where it is common is among the woods and low hills of the Southern Province, becoming still more abundant in the intermediate forests of the Gindurah. It is found all through the Kukulu and Morowak Koralés, and is common in all districts in the central zone that I have visited. It is rare about Colombo, affecting the wooded country near Hapwella, and it is sparingly located in the forest country between Trincomalee and the central road. It affects the finer and more verdant strips of jungle along the rivers of the south-east coast. Layard records it from Jaffna.

53. *VOLVOCIVORA SYKESII*, *Strickland.*—The lesser Cuckoo Shrike. *Campephaga Sykesii*, *Strick.*—Layard, *Annals Natural History*, 1854, page 128; Kelaart, *Prodromus Faunæ Zeylanica*,

omitted; vide Holdsworth, Catalogue Ceylon birds, P. Z. S., 1872, No. 106, as to female.

Found throughout all the low-country, and extending into the Central Province and southern hills to an elevation of 3,000 feet; rare in the Western Province, where it appears confined to certain districts; common in the south-west up the valleys of the Gin-durah and its tributaries, plentiful on the south-east coast, abundant in the bushy lands surrounding some of the salt lakes of the north-east, and, according to Holdsworth, very common in the north-west (Aripu.)

Note.—My experience of the plumage of the female of this bird accords with that of Mr. Holdsworth, *loc. cit.* I have never obtained or seen a single example with the black head and neck.

54. *GRAUCALUS LAYARDI*, *Blyth*.—The large Southern Cuckoo. *Campephaga Macei*, *Lessen*.—Layard, *Annals Natural History*, 1854, page 128; *Graucalus Pussellus*, *Blyth*.

A rare bird in Ceylon; Layard mentions it as found in the Southern Province, *Annals Natural History* (*loc. cit.*), but I have never yet met with it here. It occurs in the Western Province between Colombo and Ratnapura, and is likewise procured now and then in Dumbura.

55. *PERICROCOTUS FLAMMEUS*, *Forster*.—The Scarlet Minnivet. "Fly-catcher" of Europeans. "Sultan" of Coffee planters.—Layard, *Annals Natural History*, 1854, volume 13, page 127; Kelaart, *Prodromus Faunæ Zeylanica*, page 123.

Widely distributed, inhabiting the hills in numbers and descending into the low-country in some parts, though not occurring near the sea. Abundant in the Knuckles and Pussellawa districts, affecting mostly the high jungle in "múkalana," and very numerous in all the fine Southern forests. Holdsworth says it is abundant at Nuwara Eliya, where however Kelaart did not seem to have observed it. I have not met with it nearer Colombo than the small tract of forest at Poré, where the Trogon is also common. It is found in the north-eastern forests.

56. *PERICROCOTUS PEREGRINUS*, *Linn*.—The little Minnivet. Layard, *Annals Natural History*, 1854, volume 13, page 127; Kelaart, *Prodromus Faunæ Zeylanica*, page 123.

Common throughout the Island from the maritime districts up to 3,500 feet, according to my observation, and extending in the north-east monsoon up to Nuwara Eliya, where Holdsworth found it plentiful, and from where it is recorded in Kelaart's list, *loc. cit.* It is common at all seasons in the Galle district, and I have met with it in the Fort at Jaffna.

57. *ARTAMUS FUSCUS*, *Vieill.*—The Wood Swallow. Layard, *Annals Natural History*, 1854, volume 13, page 128; Kelaart, *Prodromus Faunæ Zeylanica*, page 124, also gives in addition, by some mistake, *A. Leucorhynchus*, a Philippine Islands species.

Abundant in many localities of all parts of the low-country, notably round the Bolgoḍa and Pánaduré lakes in the north-east monsoon, up the valley of the Gindurah at all seasons, and about Trincomalee in the winter season. Rare about Colombo and common in the north-west, according to Holdsworth. It does not appear to extend far inland, being found mostly along the sea border.

58. *LANIUS CRISTATUS*, *Linn.*—The Rufous Shrike. "Butcher bird" of Europeans. *Lanius superciliosus*, *Linn.*—Layard, *Annals Natural History*, 1854, page 130; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

Although Layard does not mention it, I am sure this bird is migratory in the north-east monsoon to Ceylon. Holdsworth and myself have only procured it in that season. Abundant on all dry, bushy, open lands throughout the low-country, particularly so at Hambantota and parts of the south-west in the vicinity of Galle, near Trincomalee, and according to Holdsworth, at Aripu. I have found it in patanas in all the coffee districts, and Mr. Holdsworth obtained it at Nuwara Eliya. It sometimes remains in the Southern Province as late as the last week in April.

59. *TEPHRODORNIS PONDICERIANA*, *Gmeln.*—The Wood Shrike, *Tephrodornis affinis*, *Blyth*. (Vide Holdsworth, *Catalogue Ceylon Birds*, P. Z. S., 1872.) *Tephrodornis affinis*, *Blyth*.—Layard, *Annals Natural History*, 1854, page 131; Kelaart, *Prodromus Faunæ Zeylanica*, page 124.

Resident all the year round in the south of the Island, and appears to migrate to the north and west in the north-east monsoon; common in the valley of the Gindurah, also in the Western Province, and at Trincomalee in the north-east monsoon; likewise on the south-east coast at the same season. I have never seen it at Colombo in the south-west monsoon, nor has Mr. Holdsworth observed it in the north-west during the prevalence of that wind.

Notes.—The movements of this and some few other birds in our list, are extremely puzzling; they would seem (these apparently adventuresome individuals) to move in part from the south, where they are resident throughout the year, to the north and west in the face of the north-east monsoon, or else those we have here do not migrate to the east during the south-west monsoon, finding shelter enough from the wind among the countless little hills of which this corner of the Island is composed, and hence are stationary here at all seasons, whereas their congeners, inhabiting the

north and west, are driven from those more exposed parts to the other side of the Island, and return again with the influence of the north-east monsoon. If this latter is the correct hypothesis, and I am inclined to think it is, no migration takes place at all up the west coast in the north-east monsoon from this district, those parts being supplied only from the eastern side; but I regret to say my knowledge of what species frequent the Eastern Province from May until October is not sufficient to enable me to arrive at any definite conclusion in the matter.

60. *DISSEMURUS LOPHORHINUS*, Vieill.—The Ceylon crested Drongo. “Kaputu báale” Sinhalese name for all the family. *Discurus Edoliformis*, Blyth.—Layard, Annals Natural History, 1854, page 129; Kelaart, *Prodromus Faunæ Zeylanica*, page 124.

Exclusively confined to forests and has its head-quarters in the south-west, where it is found in the “Mukalana” up all the lower hills up to 3,000 feet or more in the Sigha Rájah ranges and in the Morowak Kóralé; occurs also in the jungles of the Héwágam and Kuruwiti Kóralés. Layard procured it at Ambaganiwa, but I did not meet with it in the coffee districts of the Central Province, and therefore I would put it down as one of the most locally distributed birds we have.

61. *BUCHANGA LECOPYGIALIS*, Blyth.—The Ceylon Drongo “King Crow” of Europeans.

Confined to the Western, Central, and Southern Provinces; very abundant all through the hilly country of the south-west, affecting cultivated lands in the valleys, clearings, copses, &c. I found it in one or two of the coffee districts at an elevation of 3,000 feet, and I met with more examples in the Pupuressa district than elsewhere to the south of Kandy.

62. *MYIALESTES CINEREO CAPILLA*, Vieill.—The grey-headed Fly-catcher. *Cryptolopha Cinereo capilla*, Vieill.—Layard, Annals Natural History, 1854, page 127; Kelaart, *Prodromus Faunæ Zeylanica*, page 123.

An inhabitant of the upper hills of Ceylon. I have failed to find this little bird anywhere out of the Central Province, but in the higher parts of the Morowak Kóralé. In India, Jerdon says that it visits the plains in the cold weather, but however it must be looked upon as strictly a hill species. It is abundant all through the coffee districts down to about 3,500 feet, affecting especially the edges of the forests above the estates. Holdsworth has it as very common at Nuwara Eliya.

63. *LEUCOCERCA AUREOLA*, Lesson.—The White-fronted Fan-tail. *Leucocerca compressisostriis*, Blyth.—Layard, Annals

Natural History, 1854, page 126; Kelaart, *Prodromus Faunæ Zeylanica*, page 123. *Leucocerca Albofrontata*, *Franklin*.—Holdsworth, *Catalogue Ceylon Birds*, P. Z. S. 1872, No. 119.

A rare species in Ceylon, being found sparingly here and there, both in the low-country and Central Province, up to 3,000 feet. It occurs in the south-west, the specimen in the Museum having been shot at Mātara, and I have procured it at Baddégama; frequent about tanks in the south-eastern Province, affecting the magnificent tamarind trees which grow on those spots. I have seen it in the Knuckles in November, and Mr. Neville writes of some species of this genus (J., R. A. S., C. B., 1867-70) inhabiting the neighbourhood of Nuwara Eliya, but whether it be this bird or *L. fusciventris*, is not as yet quite clear.

64. *TCHITREA PARADISI*, *Linn.*—The bird of Paradise Flycatcher. “Bird of Paradise” of Europeans. “Gini-hora,” *Sinh.* (in the red stage) “Redi-hora (in the white stage). Layard, *Annals Natural History*, 1854, volume 13, page 136; Kelaart, *Prodromus Faunæ Zeylanica*, page 123.

Migratory to Ceylon in the north-east monsoon, very numerous in the north-east about Trincomalee as early as the first week in October; in the Western and Southern Provinces at the end of that month. In the latter district it is abundant until March, particularly on the tanks of the Gindurah as far as the “Haycock;” I found it on the rivers of the south-east in March.

65. *ALSEONAX LATIROSTRIS* *Raffles.*—The Brown Flycatcher. *Butalis Latirostris*, *Raffles.*—Layard, *Annals Natural History*, 1854, page 127; Kelaart, *Prodromus Faunæ Zeylanica*, page 123.

A winter visitant to Ceylon, and distributed throughout all parts of the low-country and the hills up to 4,000 feet. It is nowhere numerous, isolated examples being now and then met with in the season, affecting detached clumps of trees, native gardens, the edges of woods, and such like spots.

66. *CYORNIS JERDONI*, *G. R. Gray.*—The Blue Red-breast. omitted from Layard and Kelaart’s lists, but perhaps *C. Rubeculoides*, *Vigors.*—Layard, *Annals Natural History*, 1854, page 125, as it is doubtful what species he wrote of at the time.

Occurs plentifully in forests in the Western Province (Héwágam Kóralé) where it breeds; numerous in the jungles round Trincomalee, even close to the sea, and in the forests between the Central road and that place; common in the hill forests of the south-west, but not found in the maritime districts of that part.

Note.—The bird found in the Southern Province has more blue at the chin and along the side of the throat than my Western and Northern Province examples, corresponding in fact to the description Holdsworth gives (Catalogue Ceylon Birds, P. Z. S. 1872, No. 125.) of the peculiarity in the throat, of Ceylon examples of *C. Rubeculoides*. I however have examples of this species from the north with the entire blue throat and not with “the orange colouring of the breast running up the centre” of it. Can there be a third species peculiar to the Island, which has been mistaken for *C. Rubeculoides*, inhabiting the forests of the south-western hills?

67. *PITTA BRACHYURA*, *Jerdon*.—The Pitta. The Short-tailed Ground Thrush; “*Avichiyá, Sinh.*”

Migratory to Ceylon, arriving here in September, distributed over the whole Island up to Nuwara Eliya, and almost equally common in all parts. It is perhaps less numerous in the hills and in the cultivated parts of the Western Province than in the low jungles of the south-west, north-east, and south-east. In the neighbourhood of Hambantota and Trincomalee I have found it more abundant than in this district. It seems especially fond of the low Euphorbia scrub in the Kataragama district.

68. *OREOCINCLA SPILOPTERA*, *Blyth*.—The Spotted Mountain Thrush.

I have lately discovered this bird to have a much more extended range than hitherto supposed. It is distributed throughout parts of the Central Province, not mounting as high as Nuwara Eliya according to Holdsworth, over the Morowak and Kukulu Koralés, and occurs plentifully in places in the Northern Province in the north-east monsoon. I met with several in one spot in the splendid forests on the road from Trincomalee to Anurádhapura. It doubtless occurs in the low-hill forests of the Gangaboda Pattu in the Galle district. I have once or twice got a glimpse of a bird along the rocky streams of those jungles which could have been no other than this species. It is, as regards the Central Province, especially common in Dumbura.

69. *ALCIPPE NIGRIFRONS*, *Blyth*.—The Ceylon Wren-babbler. *Battichchá, Sinh.* Layard, *Annals Natural History*, 1853, volume 12, page 269.

Numerous in jungles all over the Island, except perhaps the dry country of the north-west (Aripu), where I observe Mr. Holdsworth did not find it. It is however abundant in parts of the Trincomalee district, and likewise occurs (though not in jungle near the sea) in the neighbourhood of Hambantota and Kataragama. In the Central Province it is numerous up to the highest points, and it is especially abundant in the bamboo thickets of the low-

country near Galle, becoming perhaps a little less plentiful in the Morowak Kóralé and higher parts of the Himidum Pattu. It is found close to the Cinnamon Gardens, as regards Colombo, and is numerous in all the woods and jungles of the Western Province.

70. *DUMETIA ALBOGULARIS*, *Blyth*.—The White-throated Wren-babbler; "Pig Bird" of Europeans in India; Battichchá, *Sinh.*—Layard, *Annals Natural History*, 1853, volume 12, page 272.

Great mistakes have been made about the range of this babbler owing to its shy and skulking habits. I have discovered it to be widely distributed throughout the Island and in some localities common, although Layard remarks, *loc. cit.*, "confined to the vicinity of Colombo," and Holdsworth (*Catalogue Ceylon Birds*, P. Z. S. 1872, No. 138) says that he only saw it in the vicinity of the Cinnamon Gardens. It appears, it is true, to be rather numerous in that particular locality, but it occurs in various parts of the Western Province, and all through the low wooded districts of the south-west, as well as in the Central Province up to 2,500 feet, at which elevation I met with it near Madulkéle in the Knuckles.

71. *DRYMCATAPHUS FUSCICAPILLUS*, *Blyth*.—The whistling Wren-babbler; Battichchá *Sinh.*—Layard, *Annals Natural History* 1853, volume 12, page 269.

Another bird hitherto passed over and considered very rare. Exceedingly numerous all through the low-country of the south-west up to 2,000 feet in the Morowak Kóralé and Himidum Pattu, and equally so in the Trincomalee district. Holdsworth remarks of it in his *Catalogue*, No. 139, "I only know of three specimens having been obtained, two of them by Layard in Colombo and on the central road leading northwards from Kandy, and one by myself also from the latter part of the Island." It has hitherto escaped observation owing to its shy habits and frequenting thick jungle, and I might have missed it as well as my predecessors, had not my attention, on first collecting in this district, been directed to the very remarkable note or whistle resembling the words, "to meet you," which I found on procuring a specimen emanated from this bird. Having once identified its voice, I found it an inhabitant of every bit of jungle and thicket in the neighbourhood. It occurs rarely, I imagine, in the Western Province, and will be found also in the lower parts of Sabaragamuwa. Mr. Bligh of Kandy has procured it in the Central Province, but I am not aware at what elevation.

72. *POMATORHINUS MELANURUS*, *Blyth*.—The Ceylon Scimitar Babbler.

Numerous in the jungles of the Héwágam Kóralé and interior of the Western Province generally, throughout the wooded country

of the south-west, but not so plentiful as I expected, in the upper parts of that district, in the Kandy country, and all throughout the Central Province as high as Nuwara Eliya. In the low-country of the south-west it affects by choice bamboo jungles.

73. *GARRULAX CINEREIFRONS*, *Blyth*.—The Ashy-headed Babbler.

Distributed sparingly throughout the Western, Central, and Southern Provinces (south-west), and inhabiting the damp and gloomy "múkalána" only. It is somewhat common in parts of Dumbara, I am told, and I have met with it in the Kukulu Kóralé, where I have no doubt it is more numerous than anywhere else, as the great Sigla Rájah forest contains so many of our peculiar Island species in abundance.

74. *MALACOCERCUS STRIATUS*, *Swainson*.—The striated Babbler, "Dung Thrush" of Europeans; Demalichchá, *Sinh.*; *Malacocercus Bunalensis*.—Layard, *Annals Natural History*, 1853, page 271; *Malacocercus Striatus*, *Swainson*; Kelaart, *Prodromus Faunæ Zeylanica*, page 122.

Throughout all the low-country in great abundance, especially numerous in the maritime districts of the Western and Southern Provinces, extending both into the Central and Morowak Kóralé hills to an elevation of about 2,500 feet; common up the valleys of the Gindurah and other southern rivers, numerous in the north-east; in fact, Layard says, *loc. cit.*, "it is one of our commonest birds," to which I would add also, *Allcippe nigrifrons*, *Pycnonottus hæmorrhous*, *Ixos luteolus*, *Orthotomus longicauda*, our two species of *Corvidæ*, and a few others.

75. *LAYARDA RUFESCENS*, *Blyth*.—The Rufous Babbler, "Red Dung Thrush" of Europeans; Kalu-parandal, *Sinh.*; *Malacocercus Rufescens*. *Blyth*.—Layard, *Annals Natural History*, 1853, volume 12, page 271; Kelaart, *Prodromus Faunæ Zeylanica*, page 122.

Central, Western, and Southern Provinces. In the former it is common in parts of Pusselláwa, Deltota, Dumbara, Knuckles, and, according to Holdsworth, at Nuwara Eliya in the north-east monsoon, in the Western Province; it is abundant in the jungles and sometimes in the native gardens of the Héwágam, Rayigam, and Kuruwiti Kóralés (I noticed it particularly plentiful at Labugama during the Kraal in 1871); in the Southern Province it is numerous all through the low wooded country on either side of the Gindurah up to the Sigla Rájah and Morowak Kóralé forests, where I found it at the latter end of the south-west monsoon. It is remarkable that out of the seven species of Babblers found in this Island, five are peculiar to it.

76. *HYPSIPETES GANEESA*, *Sykes*.—The Cinereous Bulbul; The Neilgherry Bulbul; *Hypsipetes*, *Neilgherrienses*, *Jerdon*; vide Holdsworth, Catalogue Ceylon Birds P.Z.S., 1872, No. 144; Kelaart, *Prodromus Faunæ Zeylanica*, page 123; Layard, *Annals Natural History*, 1854, page 125.

Western, Central, and Southern Provinces. More abundant in the latter than elsewhere, frequenting the Morowak Kóralé, Kukulu Kóralé, Upper Gindurah, Uđugama, and Kođuwa forests in vast numbers. It is perhaps more numerous in the latter low hill-forest ten miles from Galle than in the other parts; affects the chena-covered hills between that place and the sea and those on the banks of the Lower Gindurah, above Baddégama. Common in the low hill-jungles of the Western Province and in the Central Province on wooded patanas. Holdsworth found it at Nuwara Eliya in February, and Kelaart has it in his list from that place.

77. *CRINIGER ICTERICUS*, *Strickland*.—The yellow Forest Bulbul.—Layard, *Annals Natural History*, 1854, volume 13, page 124.

Abundant in many parts of the Island: throughout the Central Province to an elevation of 3,500 feet, in all the coffee districts, and in all parts of the low-country where there is forest. In the west it is found in all the forests of the Héwágam and Rayigam Kóralés, in the south-west in the “múkúlana” of Kottowe (ten miles from Galle), Uđugama, Opata, and in all the high-tree jungle of the Hinidum Pattu and Kukulu and Morowak Kóralés. It is more abundant at the medium altitudes of the above southern forests than elsewhere in the Island. In the north-east it is common in the district between Trincomalee and the Central road, and, as regards the south-east, it frequents the luxuriant parts along the Kirinde Ganga, and other rivers. This species together with *Harpactes fasciatus*, *Dissemurus lophorhinus*, *Brachyptenus Stricklandi*, and one or two others, is exclusively confined to forests.

78. *IXOS LUTEOLUS*, *Lessen*.—The White Bulbul, “Cinnamon Thrush” of Europeans. *Pycnonotus flavirictus*, *Strickland*.—Layard, *Annals Natural History*, 1853, page 128; Kelaart, *Prodromus Faunæ Zeylanica*, page 123.

Western, Northern, Southern, and Central Provinces up to 4,500 feet. Very abundant throughout all the low-country, particularly in the neighbourhoods of Colombo, Galle, Hambantota, and Trincomalee, and (according to Holdsworth) Aripu. It is common at all elevations up to that abovenamed, but decreases in numbers as it ascends.

79. *PYCNONOTUS HÆMORRHOUS*, *Gmelin*.—The common Bulbul, Madras Bulbul, "Dysentery Bird" of Europeans; *Koṇḍa Kurullá* of the Sinhalese.

This may perhaps be styled the commonest of Ceylon birds; it is abundant in all parts of the low-country except where there are large stretches of forest, and is numerous in the Central Province up to an altitude of about 4,000 feet. It is less numerous in the Morowak and Kukulu Kóralés on account of their being so heavily timbered, than at corresponding heights in the Kandy country. It is found throughout the low scrubby districts of the Mágam Pattu, and in the north it is as abundant as anywhere else.

80. *RUBIGULA MELANICTERA*, *Gmelin*.—The Black-headed Bulbul. — *Pycnonotus atricapillus*; Layard, *Annals Natural History*, 1854, volume 13, page 125. *Pycnonotus nigricapillus*; Kelaart, *Prodromus Faunæ Zeylanica*, page 123.

Tolerably plentiful in the woods of the Hévágam Kóralé, and exceedingly abundant in all situations in the south-west from the sea border up to 2,000 feet in the Morowak and Kukulu Kóralés; throughout the Central Province up to the same altitude, and occurring in considerable numbers in many parts of the wooded country between Trincomalee and the Central road. It will be found in the damper parts of the south-east, in all probability, but it is most likely absent from the arid tracts of the north-west.

81. *PHYLLORNIS JERDONI*, *Blyth*.—The Green Bulbul.—Layard, *Annals Natural History*, 1853, volume 12, page 176; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

Northern, Western, Southern, and lower hills of the Central Province; numerous in the low cultivated country of the Western and Southern Provinces, occurring also in the forests of those parts; tolerably plentiful in some districts of the north-east; occurs in Dumbura, in company with many other low-country species, but I have not heard of it from higher parts.

82. *PHYLLORNIS MALABARICUS*, *Latham*.—The golden fronted Bulbul.—Layard, *Annals Natural History*, 1853, volume 12, page 176.

Not nearly so common as the last species, but much more widely distributed than has been supposed. Found in the north-eastern forests between Anurádhapura and Trincomalee, likewise in the Kottowe and Udugama "múkálana," along the sources of the Gindurah, and in the Siggha Rájah and Kukulu Kóralé forests, throughout the Hinidum Pattu, and in the jungles of the Morowak Kóralé. Mr. Laurie of Madulkélé has procured it in the Knuckles district. Layard, *loc. cit.*, remarks that Dr. Kelaart got

this species at Nuwara Eliya, but that naturalist does not include it in his list from the sanatorium. Layard himself got it at Gillywally.

83. *IORA ZEYLONICA*, *Gmelin*.—The black-headed Bush Bulbul; the “Ceylon Bush-creeper” (Kelaart).—Layard, *Annals Natural History*, 1853, volume 12, page 267.

Abundant throughout the whole low-country both north and south, and extending into the hills of the Central and Southern Provinces to an elevation of about 1,000 feet; as far as I have observed this is one of the most strictly low-country species of its order that we have.

84. *ORIOLOUS CEYLONENSIS*,—The Southern Oriole “Maugo bird” of Europeans; “Kaha Kurullá, *Sinh*.”

Throughout the low-country; generally common in the north-west (Holdsworth), likewise in the north-east, frequenting the forests there by choice; occurs in the Western Province in some districts more than others; numerous in the south-west, frequenting there open cultivated lands studded with clumps of trees, native gardens, and the like; occurs in the interior of the south-east.

85. *COPSYCHUS SAULARIS*, *Linn*.—The Magpie Robin; *Pollicheha*, *Sinh*.—Layard, *Annals Natural History*, 1853, volume 12, page 263.

Throughout the low-country and extending into the hills to an elevation of 3,500 feet. It may be often seen in the latter part, about the patanas near the bungalows of coffee estates; very numerous in the south-west and north-east, but somewhat occurs in the Hanbantota, and Kataragam districts, where its place is in a great measure taken by the equally charming and familiar little species, *Thamnobia fulcata*.

86. *KITTACINCLA MACRURA*, *Gmelin*.—The Shama. The Long-tailed Robin, Long-tailed “Thrush.”

Western, Northern, Central and Southern Provinces. The districts in which this bird is most abundant are the Kataragam country (Mágam and adjoining Pattus) and the jungles of the north-east, particularly in the neighbourhood of Trincomalee. As it is a shy bird and frequents the densest part of the woods, it is seldom seen, but its melodious notes are heard on all sides in both those parts. Rare in the south-west, frequenting the bamboo jungles of the country round Baddégama, but rarely or ever seen owing to the thickness of the scrub; occurs in the interior of the Western Province, ranging up to the altitude of Kandy, where it is more plentiful; it probably occurs in the higher parts of the south as well. Holdsworth notices that it is abundant along the Kandy and Trincomalee road.

87. *THAMNOBIA FULICATA*, *Linn.*—The Black Robin.—Layard, *Annals Natural History*, 1853, volume 13, page 266.

Distributed throughout the whole of the low-country. According to Holdsworth is numerous at Aripu on the north-west; it decreases then towards the Western Province, being found there about chena clearings in the interior; becomes more plentiful in the same localities of the south-west, and abounds in the dry maritime districts from Hambantota round to the north-east. It is more plentiful in the south-east than in the latter district. I have not traced it, in the hills, to a greater elevation than 1,000 feet.

88. *PRINIA SOCIALIS*, *Sykes.*—The Bluish Wren Warbler.—Layard, *Annals Natural History*, 1853, volume 12, page 263; omitted from Kelaart's, *Prodromus Faunæ Zeylanica*.

Northern, Western, Central, and Southern Provinces. Sparingly distributed in all these parts, frequenting grass fields in the Western Province, sugar-cane fields about Galle and Baddégama, and patanas in the Central Province, up to, as far as I have observed, 3,000 feet. I did not find it in the north-east, but it most probably occurs there, as Layard, *loc. cit.*, found it at Point Pedro.

89. *CISTICOLA SCHÆNICOLA*, *Bonap.*—The Rufous Grass Warbler. *Cisticola Cursitans*, *Blyth.*—Layard, *Annals Natural History*, 1853, volume 12, page 262; Kelaart, *Prodromus Faunæ Zeylanica*.

Widely distributed over the whole Island from the sea coast up to Nuwara Eliya and the Horton Plains, in both of which districts it is said by Kelaart and Holdsworth to be very abundant, equally so on all patanas of the Central Province, and in paddy fields and grassy lands in most parts of the low-country. Less numerous than elsewhere in the south coast, there being but little land in that part suited to its habits.

90. *DRYMOIPIUS VALIDUS*, *Blyth.*—The Ceylon Wren Warbler. *Drymoica Valida*, *Blyth.*—Layard, *Annals Natural History*, 1853, volume 12, page 262.

Western, Southern, and Central Provinces, and likewise in the north-eastern districts. This species, according to my observation, is not so abundant as *D. Jerdoni*, the common species about Colombo; it occurs in the Central Province in hill paddy fields, in the southern parts of the Island, in clearings in the valleys, and in the upper districts of the Hinidum Pattu in "kurukkan" fields. Not observed in the south-east.

91. *PHYLLOSCOPUS NITIDUS*, *Latham.*—The Green Tree Warbler. *Phyllopus nitidus*, *Blyth.*—Layard, *Annals Natural*

History, 1853, page 263. Omitted from Kelaart's list.

Migratory, appearing in September, and leaving in the latter part of April. It affects the tops of high trees in the forests of the Central Province, and in the jungle bordering the patana streams; the same in the southern and north-eastern parts of the Island; and affects pieces of detached jungle where the timber is large in the low-country of the south-west. It is met with near Colombo, about Póré, Hanwella, Bópé, and such parts as are wild and uncultivated.

92. *CALOBATES SULPHUREA*, *Bechst.*—The Grey and Yellow Wagtail, the Grey Wagtail. *Motacilla boarula*, *Linn.*—Layard, *Annals Natural History*, 1853, page 268; Kelaart, *Prodromus Faunæ Zeylanica*, page 121.

Migratory, as are all the Wagtails, arriving in September and leaving in May. I have found it in the Western, Central, and Southern Provinces; it remains about the coast for the first three weeks, during which time I have often seen it on the rocks of the sea shore, and then ascends to the hills, where it is found on every stream up to 6,000 feet. Mr. Holdsworth procured it at Nuwara Eliya; it is scarcely ever seen about streams at intermediate heights under 2,000 feet.

93. *LIMONIDROMUS INDICUS*, *Gmelin.*—The Indian Wood Wagtail. *Gomaritá*, *Sinh.*—*Nemoricola*, *Blyth.*; *Motacilla indica*, *Gmelin.*—Layard, *Annals Natural History*, 1853, volume 12, page 268; Kelaart, *Prodromus Faunæ Zeylanica*, page 121.

Migratory to the Northern, North-Eastern, and Western Provinces; common in the jungles from Dambulla to Trincomalee and especially numerous in the vicinity of the latter and along the Anurádhapura road, affecting alike jungle paths and roads through the forest and open glades; very rare in the Western Province, having once or twice been procured near Colombo, and occurs no doubt in the jungles of the northern part of the Seven Kóralés.

Note.—This is, without any exception, in my opinion, the most charming of our birds. Fearless and most inquisitive in its disposition, it is the constant companion of the naturalist in his wanderings through the lonely jungles of the Northern Province, exhibiting on all occasions the most familiar and confiding character; often when I have been resting in some silent spot, the branches of the trees forming a thick canopy overhead and the open ground beneath strewn with dead leaves, this little denizen of the woods has come to within a couple of yards of me, busily searching about, running to and fro, and ever and anon “balancing” its elegant little body in the peculiar manner common to all its genus, and after surveying me for a moment with the quietest

curiosity, has hopped up, with its lively little "chuck, cluck," to the nearest branch, and, after running along it for an instant, has again commenced feeding within a few yards of the murderous weapon lying across my arm. I never could find it in my heart to shoot more than two specimens of it.

94. *BUDYTES VIRIDIS*, *Gmelin*.—The Indian Field Wagtail. *Budytes viridis*, *Scop.* Layard, *Annals Natural History*, 1853, volume 12, page 268.

Migratory, as the others of its family; common in all open grass lands in the Northern, Western and Southern Provinces; frequents newly-ploughed paddy fields, at times, in great numbers, and is especially noticeable on the esplanades of Galle, Colombo, and Trincomalee.

Note.—These birds remained very late this year, occurring at Galle as late as the 6th May.

95. *CORYDALLA RICHARDI*, *Vieill.*—Richard's Pipit. *Anthus richardi*, *Temm.*—Layard, *Annals Natural History*, 1853, page 268.

A winter migrant to the Northern, Western, and Southern Provinces, arriving in September, and departing as late as the first week in May; common on all such open lands as those cited for the last named species; not so numerous in the Southern as in the Western Province and north-eastern districts. Found plentifully in the Jaffna peninsula.

96. *CORYDALLA RUFULA*, *Vieill.*—The common Indian Pipit. Layard, *Annals Natural History*, 1853, page 288.

Abundant all over the Island, to an elevation from the sea coast; frequents plains and patanas in the Central Province, and open grass lands, paddy fields, &c., in the low-country. It appears to be nowhere as plentiful in the south-west as in the north-east monsoon.

97. *ZOSTEROPS PALPEBROSUS*, *Temm.*—The common White-eye; "Tit" of Europeans. The *Zosterops*.

Widely distributed over the whole Island, and found in the hills of the Central Province up to 3,400 feet, at which elevation it is common in the Pussellawa district. Abundant at times in the trees in the Colombo and Galle forts, and found in both open groves and jungle where there are large trees.

98. *ZOSTEROPS CEYLONESIS*, *Holdsworth*.—The Ceylon White-eye. Ceylon *Zosterops*; vide Holdsworth, *Catalogue Ceylon Birds*, P. Z. S., 1872, No. 181, (Plate xx, Fig. 2.)

Zosterops annulosus, Swains. Layard, Annals Natural History, 1853, page 267.

One of our late additions by Mr. Holdsworth, and confounded hitherto with *Z. Annulosus*, Swainson (an African species), as well as with the subject of the forgoing note by Layard, *loc. cit.* Inhabits the hills from Nuwara Eliya, down to an altitude of about 2,000 feet in the Southern Province; abundant in the higher forests of the Knuckles, Upper Dimbula, and Pussellawa, as well as in the high mountain jungle round Nuwara Eliya. In the Southern Province it inhabits all the high parts of the Morowak Koralé, and is very abundant in the great Sipa Rāja forest and other similar localities in the Kukulu Koralé and Hinidum Pattu; occurs sparingly on the highest parts of the Udugama and Opata hills (2,000 feet.)

99. *PARUS CINEREUS*, Vieill.—The Indian Titmouse, “Coffee bird” of Planters.—Layard, Annals Natural History, vol. xii, 1853, page 267.

Distributed throughout the hills of both the Central and Southern Provinces, affecting much coffee bushes in the plantations. Not resident much below 2,000 feet, and scarcer above that altitude in the Morowak Koralé than in the central zone. Descends to the low-country at times in the North-East monsoon, occurring rarely along the west coast, at Colombo, Pannaduré, Kalutara, and Ambalangoda.

100. *CORVUS SPLENDENS*, Vieill.—The Grey Crow, Karavakakká, Sinh.—Layard, Annals Natural History, volume 13, 1854, page 214.

Abundant in the low-country of the north, north-west, and north-east, likewise at Colombo, and all down the west coast as far as Bentota, where, according to my experience and that of Mr. Neville (J., R. A. S. Ceylon, 1870–71, page 33) it suddenly ceases, and is replaced entirely on the south-west by the next species, *Corvus Levaillanti*. At Hambantota I believe it occurs now and then, but the prevalent species at that place is the same as at Galle.

101. *CORVUS LEVAILLANTI*, Lessen.—The Carrier Crow. Goyagama-kakká, Sinh. *Corvus Culminatus*, Sykes.—Layard, Annals Natural History, 1854, page 213; Kelaart, Prodrömus Faunæ Zeylanica, page 124.

Distributed throughout the low-country and occurring in the hills up to 5,500 feet, at which altitude it is scarce. Common in the north and west, and very abundant in the extreme south, where it takes the place, as a citizen, of the last species.

In places where the grey bird is abundant, as at Colombo and along the west coast generally, this bird frequents rather inland districts, being invariably found about native villages and detached cottages in the woods.

102. *CISSA ORNATA*, *Wagler*.—The Ceylon Jay. *Cissa puella*, *Blyth*.—Layard, *Annals Natural History*, 1854, page 213; Kelaart, *Prodromus Faunæ Zeylanica*, page 124.

Throughout the Central Province and Morowak and Kukulu Kóralé hills. It affects the upper forests in the north-east monsoon, coming down in the other season much lower. I have found it on the Gindurah, in the interior part of the Hinidum Pattu, perhaps under 1,500 feet. It is very numerous in parts of the Rakwána districts and towards the Sigha Rája forest at all seasons.

103. *EULABES RELIGIOSA*, *Linn.*—The Hill Myna, “Sela-léniyá,” *Sinh.*; *Gracula Religiosa*, *Linn.*—Layard, *Annals Natural History*, 1854, page 216; Kelaart, *Prodromus Faunæ Zeylanica*, page 126.

Western and Southern Provinces and lower parts of mountain zone; commences at some little distance from the sea in the south-west, and occurs up the valley of the Gindurah in abundance, and in all the subsidiary hill forests up to about 1,700 feet in the Morowak Kóralé and Hinidum Pattu. It is found about Negombo, in the Western Province. Compared with other Indian species inhabiting the Island, its distribution is very local.

104. *PLOCEUS BAYA*, *Blyth*.—The common Weaver Bird, the “Baya.” Tattéh Kurullá, *Sinh.* *Ploceus Philippinus*, *Linn.*—Layard, *Annals Natural History*, 1854, volume 13, page 257.—*P. Bengalensis*, *Linn.*; Kelaart, *Prodromus Faunæ Zeylanica*, page 126.

Western, Northern and Southern Provinces. Numerous in the north-west, in the Mannár district, breeding there, according to Holdsworth, in December; frequents the Western Province about Kótté and other localities not far distant from Colombo, breeding there in May and June; abundant in the south-west, breeding in all parts of that district from Ambalangodá to Mátara, from May until August; the same in the north-east, breeding about Trincomalee in the north-east monsoon from October till December.

105. *MUNIA UNDULATA*, *Lath.*—The spotted Munia, *Amadina undulata*, *Lath.*—Layard, *Annals Natural History*, 1854, page 258; Kelaart, *Prodromus Faunæ Zeylanica*, page 125.

Entire low-country, North and South, and Central Provinces, and southern hills up to 3,000 feet, at which elevation I have observed

it on the patanas of all the coffee districts. It is equally abundant in all parts of the low-country (except perhaps in the Kataragama district) wherever the features of the locality suit its habits.

106. *MUNIA MALACCA*, *Linn.*—The Black-headed Munia, The Cinnamon-backed Munia; *Amadina Malacca*, *Linn.*—Layard, *Annals Natural History*, page 258; Kelaart, *Prodromus Faunæ Zeylancia*, page 125.

Northern, Western, and Southern Provinces. Appears not to ascend into the hills, and is not very abundant anywhere in the low country. Found in the Western and Southern Provinces about inland paddy fields, surrounded with wild jungle, and occurs in such like localities in the north-east, about Trincomalee. In the south-west it occurs near Galle, when the paddy is in ear, coming down from the interior, and evidently retiring again after the harvest. Layard found it at Jaffna, *loc. cit.*

107. *MUNIA STRIATUS*, *Linn.*—The White-backed Munia. “Wí-kurullá,” Sinhalese name for all the Munias. *Amadina Striata*, *Linn.*—Layard, *Annals Natural History*, 1854, page 258; Kelaart, *Prodromus Faunæ Zeylanica*, page 126.

Throughout the low-country of the north-west and south and probably the east, and ascending up to 3,000 feet on the patanas of the Central Province. In the western district occurs about Kótté and its neighbourhood, and throughout the country at the same distance from the sea down to the Galle district, where it is numerous about Baddégama and such places. Affects grassy, scrubby clearings and overgrown gardens in preference to paddy fields. Not abundant in the north-east.

108. *MUNIA KELAARTI*, *Blyth.*—The Ceylon Munia. Kelaart's Munia. *Amadina pectoralis*,* *Jerdon*; Layard, *Annals Natural History*, 1854, volume 13, page 258.

Common in the Central Province from Nuwara Eliya down to as low as 2,500 feet, where I have seen it in the same patana with *M. Undulata* and *M. Striatus*. I have not met with it in the Kukulu or Morowak Kóralé, and doubt if it occurs in the Southern hills.

109. *ESTRElda AMANDAVA*, *Linn.*—The Amaduvad. Red Wax-bill. *Vide* my notes (J., R. A. S., C. B., 1870-71.)

Neighbourhoods of Colombo and Galle. No doubt this bird has become acclimatised in, or rather been introduced into, the Island

* An Indian species, allied to our bird, which has been separated from it since Layard wrote.

from having escaped from cages brought from India to both the above towns. I have only seen it twice in Galle, and that was at the Esplanade close to the Fort.

110. *PASSER INDICUS*, *Jerd. and Shelby*.—The Indian House Sparrow. *Gé-kurullá, Sinh.*

Throughout the whole island wherever there are inhabitants.

111. *MIRAFRA AFFINIS*, *Jerdon*. The Southern Bush-Lark.—Layard, *Annals Natural History*, 1854, volume 13, page 258.

On dry, open grass and scrubby land in the northern, western, and south-eastern districts; scarce in the Western Province, occurring in the Cinnamon Gardens; absent from the south-west; abundant in the lowlands of the south-east, particularly near the sea, and from thence round the east coast to Trincomalee and the north; very numerous about the grassy margins of tanks in the north-east. Layard found it at Point Pedro, and Holdsworth records it as plentiful at Aripu, just the kind of country to suit it.

112. *PYRRHULAUDA GRISEA*, *Scop.*—The Indian Finch Lark.—Layard, *Annals Natural History*, 1854, volume 13, page 259.

Abundant in the Northern Province, in the south-east, and probably all round the east coast to Trincomalee, where it is numerous; also strays into the Central Province. Jaffna, the north-east coast, and the Kataragama and Hambantota country are the localities where I have found this bird numerous, and on the 17th November, 1870, while riding up the Rambođa Pass I was astonished to find a *male feeding in some grass by the road side at an elevation of 6,000 feet*! I was within ten yards of it, and watched for five minutes; so I made no mistake when noting this extraordinary occurrence down. In India I am not aware that it has ever been recorded at such an elevation, being essentially a low-country, plain-and-desert-loving bird.

113. *ALAUDA GULGULA*, *Frank.*—The Indian Sky-Lark.

Northern, western, and south-eastern districts, and probably throughout the Eastern Province; migratory to the south in the north-east monsoon. It is abundant throughout the dry districts of the north, north-west, and north-east, and occurs on the western and south-western coasts in such places as the "Galle Face" at Colombo, and esplanade at Galle, or on any similarly situated open land. I did not find it anywhere on the hill patanas, and am of opinion that it never leaves the low-country.

114. *OSMOTRERON BICINCTA*, *Jerdon*.—The Orange-breasted Fruit Pigeon, “Green Pigeon” of Europeans. Batagoyá, Sinhalese name for all the genus. *Treron Bicincta*, *Blyth*.; Kelaart, *Prodromus Faunæ Zeylanica*, page 130.

Northern, Western, Central, and Southern Provinces. Occurs rarely in Dumbara; tolerably numerous in Trincomalee district; scarce about Colombo, becoming more plentiful a little distance inland, and towards the south, where it is (in the Galle district) almost as numerous as *Turtur Suratensis*. It extends in that part, up the valley of the Gindurah, to about 30 miles in a straight line from the sea, and then seems to be replaced almost entirely by the next species. This pigeon visits certain districts according as its favourite fruits abound; common along rivers in south-east.

115. *OSMOTRERON POMPADOURA*, *Gmelin*.—The Maroon, Maroon-backed Fruit Pigeon; vide Holdsworth, *Catalogue Ceylon Birds*, P. Z. S., 1872, No. 20.

Northern, Western, Central, and Southern Provinces. Local in its distribution through these parts. Common about Trincomalee and inland from thence to the Vanni district; abundant in parts of the south-western hill country, commencing some distance inland, and extending up to 2,000 feet in the Hinidum Pattu and Morowak Kóralé; plentiful on the Kirinde Ganga and other rivers of the Kataragama district; occurs in the country round Kurunégala, and in the wilder parts of the Héwágam and Pasdun Kóralés. Layard found it in the central mountain zone, but I do not think that it ranges about 2,000 feet.

116. *CARPOPHAGA SYLVATICA*, *Tickell*. — The Green Imperial Pigeon, “Wood-pigeon” of Europeans in the low-country. Maha Nil Goyá, *Sinh*.—Kelaart, *Prodromus Faunæ Zeylanica*, page 130. *Carpophaga*, *Pussilla*, *Blyth*.—Layard, *Annals Natural History*, volume 14, page 59?*

Throughout the forest-covered and heavily-wooded districts of the Island: more abundant below 2,500 feet than above that height; common in the district between Anurádhapura and Trincomalee; abundant in parts of the Eastern Province and also in the south-east, especially in the vicinity of Tissamaharáma; in all the forests of the south-west from the Kukulu Kóralé to the neighbourhood of Galle; likewise in the wilder parts of the Western Province, between Ratnapura and Colombo.

* Unfortunately the few pages containing Layard's notes on this and one or two other pigeons are torn out of the volume in the Royal Asiatic Society's Library.

117. *TURTUR SURATENSIS*, *Gmelin*.—The spotted Turtle-dove. “Kobeyá,” *Sinh.*—Kelaart, *Prodromus Faunæ Zeylanica*, page 130.

Common throughout the whole Island up to 2,000 feet in the Central Province; especially abundant in the north, north-east and south-west. I have not met with it above 1,500 feet in the Hinidum Pattu and Morowak Kóralé, although it occurs at greater elevations than that in the Kandy country.

118. *CALCOPHAPS INDICA*, *Linn.*—The Ground Dove, Green Dove. “Green Pigeon,” “Bronze Wing,” and Beetle-winged Pigeons of Europeans. “Nil-Kobeyá;” *Sinh.*—Layard, *Annals Natural History*, 1854, volume 14, page 62.

North-east, Central Province, West, and whole of the South. Very common in the Bamboo chena country from Galle inland to the Hinidum Pattu and parts of the Morowak Kóralé.

119. *GALLUS STANLEYI*, *Gray*.—Ceylon Jungle Fowl. “Weli-Kukulá;” *Sinh.*—Layard, *Annals Natural History*, 1854, volume 14, page 62. *Gallus Lafeyetti*, *Lesson*.—Kelaart, *Prodromus Faunæ Zeylanica*, page 131.

Found on the whole Island, extending from all parts of the coast where there is jungle up to Nuwara Eliya; less numerous in the cultivated maritime districts of the west and south-west coasts than elsewhere; not very abundant in the hill country of the south-west, becoming exceedingly numerous east of Tangalla, through all the flat country of the Hambantota and Katuragama districts round to the north; equally so in the Trincomalee district, particularly in the jungles along the sea coast; abundant in the upper hills, especially when the “nelloo” (*Strobilanthes viscosus*?) is in flower, at which time I am informed the jungles round the Horton Plains swarm with this species.

120. *GALLOPERDIX BICALCARATA*, *Foster*.—The Spur-fowl, Spurred Partridge. Haban-kukulá, *Sinh.*—Layard, *Annals Natural History*, 1854, volume 14, page 105; Kelaart, *Prodromus Faunæ Zeylanica*, page 131.

Central, Southern and Eastern Provinces. Does not appear, as far as the low-country is concerned, to extend north of Negombo on the west and Batticaloa, although on the northern slopes of the Knuckles its range would of course extend beyond the latitude of those places. It may occur in the forests of the north-east, but I was not successful in tracing it there. Abundant throughout the Central Province, in the north-east monsoon especially, frequenting the jungle above the coffee estates to an altitude of about 5,000 feet. I noticed it particularly numerous in Upper Dimbula.

Common in the Sabaragamuwa district. It is more numerous in the south-western hill groups than in other parts of the Island, this part being its headquarters; it frequents all the bamboo and chena scrub, secondary jungle, and primæval forest from close to Galle up to the highest parts of the Morowak Kóralé. I did not meet with it in the maritime districts of the south-east, but it is doubtless found at some little distance inland, as it occurs in the Friar's Hood district of the Eastern Province.

121. *ORTYGORNIS PONDICERIANA*, *Gmelin*.—The grey Partridge. Oussa Watuwá, *Sinh*. *Francolinus Ponticerrinus*, *Gmelin*.—Layard, *Annals Natural History*, 1854, volume 14, page 107; Kelaart, *Prodromus Faunæ Zeylanica*, page 131.

Northern and Western Provinces. Common from Jaffna along the west coast down to Puttalam, not found at the east coast however; tolerably numerous near Colombo about the Cinnamon Gardens, where I imagine it has introduced itself by escaping from confinement. Layard, *loc. cit.*, says it is found at Tangalla; I have however not heard of it from that part, and did not meet with it further round to the south-east. Kelaart procured it at Nuwara Eliya.

122. *EXCALFATORIA CHINENSIS*, *Linn*.—The Chinese Quail. Blue-breasted Quail. "Wenëlla-watuwá," *Sinh*. *Coturnix Chinensis*, *Linn*.—Layard, *Annals Natural History*, 1854, page 107, volume 14, page 107.

Western and Southern Provinces; abundant in all the paddy fields of the south-west, and extreme south as far round as Málara, not extending far inland however; common in swampy fernbrakes in the Cinnamon Gardens near Colombo and in like situations down the West Coast.

123. *TURNIX TAIGOOR*, *Sykes*.—The Black-breasted Quail. "Rain Quail." Panduru Watuwá, *Sinh*. *Turnix Ocellatus*, *Scop*.—Layard, *Annals Natural History*, 1854, volume 14, page 107; *Coturnix Coromandelica*, *Gmelin*.—Kelaart (erroneously) *Prodromus Faunæ Zeylanica*, page 131.

Throughout all the low-country north and south, where the features of the land suit its habits. Abundant in the north-west, and tolerably common on the other coast near Trincomalee; inhabits low copses, overgrown clearings, &c., in the low hills and intervening flats of the south-west. It is not numerous in the Hambantota district, being probably found more in the open "park" country than near the sea.

Note.—Layard, *loc. cit.*, says this species is abundant in the south, and the variety which Mr. Blyth designates as *T. Bengalen-*

sis, in the north. *P. Bengalensis* is however synonymous with *P. Taigoor*; I did not see any difference, in examples procured in the Trincomalee district, from many south country specimens, and I notice that Holdsworth, Catalogue Ceylon Birds, P. Z. S., 1872, No. 223, does notice the fact of another variety existing in the north.

124. *CHARADRIUS FULVUS*, *Gmelin*.—The Indian Golden Plover. "*Oleya*," "*Rana Waṭuwá*," *Sinh.*; *Charadrius longipes*, *Temm.*—*Charadrius Virginicus*, *Beck*.—Layard, Annals Natural History, volume 14, page 109.

Migratory to Ceylon, appearing in September and leaving in April, generally distributed in the low-country and found where there are open lands; more numerous between Baldégama and Galle than anywhere else in the south; occurs near Colombo in hot weather; found in the maritime districts of the south-east, but not in any great numbers. This species wanders about a good deal in hot weather, being found there in spots which it never frequents at other times.

125. *ÆGIALITES MONGOLICUS*, *Pallas*.—The Lesser Sand Plover; "*Waṭuwá*," *Sinh.* *Hiaticula Leschenaulii*, *Lesson*.—Layard, Annals Natural History, volume 14, page 109; Kelaart, Prodrömus Faunæ Zeylanica, page 133.

Around the whole coast of Ceylon, arriving in October and departing as late as the first week in May. Frequents sandy banks of rivers and open lands in the south-west; found after rain in such spots as the "Galle Face" at Colombo, and the esplanade at Galle; numerous round all the salt lakes and lagoons from Hambantōṭa to Trincomalee, and very abundant north of that on Niláveli, Kumburaputty, Periya Karrety, and Mullaittivu back-waters and in all lagoons to the extreme north. At the west coast it is numerous from Jaffna down to Negombo lake.

126. *ÆGIALITES DUBINS*, *Scop*.—The Indian Ringed Plover. *Ægialites Philippensis*, *Scop*. *Hiaticula Philippina*, *Scop.*; Layard, Annals Natural History, 1854, volume 14, page 109.

North, west, east, and south-east coasts. Not nearly so abundant as, and more local than, the last species; common in the north-west, where Mr. Holdsworth thinks it is resident; occurs at times down the west coast on grass lands near the sea; absent from the south-west and not frequent on the salt pans of Hambantōṭa and Kirinda; more numerous, as far as I have observed, along the north-east coast than elsewhere, where it affects the shores of all the salt lagoons beyond Niláveli to Mullaittivu. All these small species of *charadrinae* are met with on the lagoons and estuaries of Jaffna.

127. *LOBIVANELLUS INDICUS*, *Bodd.*—The Indian Lapwing. Red-wattled Lapwing; Kibulla, *Sinh.* *Lobivanellus* *Göensis*, *Gmelin*; Layard, *Annals Natural History*, volume 14, page 109; Kelaart, *Prodromus Faunæ Zeylanica*, page 132.

Abundant throughout all the low-country both in the maritime districts and at some distance inland, wherever there are open lands, swamps, tanks, paddy fields, &c. Less plentiful in the south-west, perhaps, than in other districts. In the south-east frequents borders of tanks and the flat lands around the salt pans.

128. *ÆDICNEMUS CREPITANS*, *Temm.*—The Stone Plover. Norfolk Plover. "Thick-knee."—Layard, *Annals Natural History*, 1854, volume 14, page 108; omitted from Kelaart, *Prodromus Faunæ Zeylanica*.

Northern, Western, and Eastern Provinces, and south-eastern districts. Common on both coasts in the north, being numerous about Trincomalee. In the south-east it is plentiful at Kirinda and all that neighbourhood; in the west it is scarce, occurring in the Cinnamon Gardens during the first part of the north-east monsoon. I have never met with it in the Galle district; it appears to be migratory to those parts of the south which it frequents.

129. *STREPSILAS INTERPRES*, *Linn.*—The Turnstone.—Layard, *Annals Natural History*, 1854, volume 14, page 110; *Cinclus Interpres*, *Linn.*—Kelaart, *Prodromus Faunæ Zeylanica*, page 133.

Migratory; very local in its distribution, and our rarest wader. Layard records it, *loc. cit.*, at Point Pedro in the month of January. Occurs down the north-west coast, and probably on the salt lakes and lagoons of the Mullaitivu and Trincomalee districts. It is absent from the south-west, and more numerous, I am of opinion, in the south-east than elsewhere; I found it in that district in pairs, frequenting the shores of the salt lagoons.

130. *GALLINAGO STENURA*, *Temm.*—The Pin-tailed Snipe. Indian Snipe. Kas-watua, *Sinh.*—Layard, *Annals Natural History*, 1854, volume 14, page 266; Kelaart, *Prodromus Faunæ Zeylanica*, page 135.

Found throughout the Island up to an elevation of 3,000 feet, beyond which a few stray to the upper hills. Arrives in the Western Province as early as the 20th September, and remains as late in the Southern Province as the 6th of May; these are of course only individual instances. Especially numerous in the Kurunégala district, at Tamblegam in the north-east, about some of the tanks in the Eastern Province, and at Udugama in the south western forest district.

131. *RHYNCHŒA BENGALENSIS*, *Linn.*—The Painted Snipe. "King Snipe." "Rajah-watuwa," *Sinh.*—Kelaart, *Prodromus Faunæ Zeylanica*, page 135; Layard, *Annals Natural History*, 1854, volume 14, page 266.

Found throughout the whole of the low-country, arriving about the same time as the "Pin-tail," and leaving in May, although many individuals remain here to breed.* It is locally numerous, being common in some districts where there are marsh and deserted paddy lands, and rare in others equally favourable to its habits of concealment. Numerous about Pánaduré and Bolgođa lakes, near Kalutara and Wakwella, Mátara, &c.; likewise in the north-east about Tamblegam, the "salt lake," and other localities in the vicinity of the Naval Port. In this latter district it affects much the salt marshes near the edge of the tidal flats round the salt lagoons. Tolerably frequent in the Jaffna district. I am not aware whether it frequents the south-eastern parts of the Island in any quantity.

132. *ACTITIS GLAREOLA*, *Gmelin.*—The spotted Sandpiper. "Watuwa," *Sinh.*

On salt marshes, near and on tidal flats, along margins of brackish lagoons, on the borders of tanks, and in paddy fields newly ploughed all round the shores of the Island, extending into the interior where there are tanks and cultivated fields; more numerous perhaps in the north-west, about Jaffna, and all down the north-east coast, and also all the salt-pans of the south-east, than in the Western Province and south-western districts; in these latter parts, however, it is generally distributed, being, in company with the next species, the only waders found on the dreary shores of the mangrove-lined lagoons of Amblangođa, Rogalla, and the like places.

133. *ACTITIS HYPOLEUCOS*, *Linn.*—The common Sandpiper; *Totanus hypoleucos*, *Linn.*—Layard, *Annals Natural History*, 1854, volume 14, page 265; Kelaart, *Prodromus Faunæ Zeylanica*, page 134.

Throughout all the low-country and up to 3,000 feet in the hills, frequenting the borders of rivers far inland, the shores of the salt lagoons and brackish lakes, and the rocks of the seashore round the Island. For the greater part migratory, arriving very early in September and leaving in May, but some few remain throughout the year; whether they breed or not, I am unable to state.

* This bird has been known to breed at Anurádhapura, Kalutara, Uđugama, and Póré, near Colombo, from which latter place the "nestling" in the Society's Museum was procured.

134. *HYDROPHASIANUS CHIRURGUS*, Scop.—The Pheasant-tailed Jacana, the “Water Pheasant;” Bullat-saaru or “Cat Teal” of the Sinhalese.—Layard, *Annals Natural History*, 1854, volume 14, page 267. *Hydrophasianus Sinenses*, Waghtler.—Kelaart, *Prodromus Faunæ Zeylanica*, page 135.

Throughout the whole of the low-country, on all fresh water tanks, swamps, and lakes. Very numerous on all the inland tanks of the Vanni and Trincomalee districts, in Bintenna lake, on the tanks of the east and south-east (particularly Tissa Maha Rama and Sittrawella in the Kataragama country), about Mátara, on Bolgoda lake, and on Kotte lake, and other sheets of water in the Western Province.

135. *PORPHYRIO POLIOCEPHALUS*, Lath.—The Blue Coot, Purple Coot. Kittala, Sinh.—Layard, *Annals Natural History*, 1854, volume 14, page 268. Omitted from Kelaart’s *Prodromus Faunæ Zeylanica*.

Throughout the low-country generally. Rare on Bolgoda, Amblangoda lakes, frequenting secluded nooks; occurs about the marshes near Mátara; more common on the tanks of the south-east and throughout the Eastern Province, and abundant on the tanks of the Western Province and on Bintenna lake.

136. *GALLINULA PHÆNICURA*, Forster.—The white-breasted Water-hen. “Korowaka,” Sinh.—*Gallinula Phœnicura*, Pennant.—Layard, *Annals Natural History*, 1854, volume 14, page 268; Kelaart, *Prodromus Faunæ Zeylanica*, page 135.

Abundant throughout the low-country, and occurring in the valleys of the Central Province at about 2,000 feet. Affects swamps, marshes, paddy fields, tanks, ditches, and all spots where there is water permanently.

137. *GALLICREX CRISTATUS*, Lath.—The Water-cock. “Kora” in India. “Willi-kukula,” Sinh.—*Gallinula cristata*, Lath.—Layard, *Annals Natural History*, 1854, volume 14, page 268; Kelaart, *Prodromus Faunæ Zeylanica*, page 135.

Occurs sparingly in all marshy districts throughout the low-country. In the Western Province at Kótté, and in Pánaduré and Bolgoda lakes; in the south-west about Amblangoda, Wákwellá, and Mátara; on Tissa Maha Rama and all tanks of the south-east and Eastern Province; in similar localities in the neighbourhood of Trincomalee, where it is tolerably plentiful. It appears to be migratory to the south.

Note.—This species is always found in damp places covered with long grass.

138. *RALLINA CEYLONICA*, *Gmelin*.—The Banded Rail. *Porzana Zeylonica*, *Gmelin*.—Layard, *Annals Natural History*, 1854, volume 14, page 267. *Covettuera Zeylanica*, *Brown*.—Kelaart, *Prodromus Faunæ Zeylanica*, page 135.

Migratory to the west coast, coming in with the long shore wind in October. It extends to the Kandyan country, being occasionally found in Dumbara. I have not heard of it from the east coast.

139. *PORZANA FUSCA*, *Linn.*—The Ruddy Rail; Layard, *Annals Natural History*, 1854, volume 14, page 267. Omitted from Kelaart, *Prodromus Faunæ Zeylanica*.

Western and Central Provinces. This is a very rare species; Layard got it at Kotte, near Colombo, and I have heard of individuals from the Kandy district, these being the only places where it has as yet been observed.

140. *ARDEA PURPUREA*, *Linn.*—The Purple Heron; Blue Heron. "Karawal Koka," *Sinh.*—Layard, *Annals Natural History*, volume 14, page 110; Kelaart, *Prodromus Faunæ Zeylanica*, page 133.

Throughout the marshy, well-watered districts of the Island, but more numerous down the west coast than on the opposite side of the Island, where the Grey Heron takes its place in some measure. Numerous about Kalpitiya, Negombo, Bolgođa and Amblandođa, lakes and marshes to the south of the latter, and about Mátara; occurs on the tanks in the Kataragama district, and generally throughout the Eastern Province; more plentiful again towards the north, frequenting Topur tank and all the salt lakes from Trincomalee and Nilaveli northwards through Terria and Mullaitivu to Jaffna.

141. *BUPHUS COROMANDUS*, *Bodd.*—The Cattle Egret. "Paddy Bird" of Europeans. "Gelevi Koka," *Sinh.*—*Ardea bubulcus*, *Jamg.*—Layard, *Annals Natural History*, 1854, volume 14, page 111; Kelaart, *Prodromus Faunæ Zeylanica*, page 133.

Throughout the low-country; more abundant in the south and west than on the east side and in the Northern Province. Inhabits paddy fields and open lands in the vicinity of streams and swamps between Colombo and Ambépussa, throughout the Rayigam and Pasdun Kóralés, and in the Galle and Mátara districts; occurs in similar localities, but not so plentifully, in the neighbourhood of Kataragama and throughout the Eastern Province, likewise in the vicinity of all the salt lagoons between Trincomalee and the Jaffna district, and occurs frequently in Dumbara.

142. *ARDEOLA GRAYII*, *Sykes.*—The Pond Heron. "Paddy Bird." "Kanna Koka," *Sinh.*—*Ardeola leucoptera*, *Bodd.*—

Layard, *Annals Natural History*, 1841, volume 14, page 112; Kelaart, *Prodromus Faunæ Zeylanica*, page 133.

Throughout all the low-country and extending into the Central Province to 2,500 feet; abundant in all marshes and paddy fields and in the vicinity of fresh water; perhaps less numerous in the dry districts of the north-west and south-east than elsewhere.

Note.—There is a small colony of these Herons in the Fort at Trincomalee, around which they may be seen perched on the rocks catching fish. This is the only place where I have ever observed the species in such situations.

143. *BUTORIDES JAVANICA*, *Horsf.*—The Little Green Bittern.—Layard, *Annals Natural History*, 1854, volume 14, page 113; omitted from Kelaart's List, *Prodromus Faunæ Zeylanica*.

Throughout the low-country generally, but most numerous in the north, north-east, and south-west. In the north it is found in the Fort ditch at Jaffna and other similar spots, and frequents the borders of all salt lagoons in the Trincomalee district which are immediately surrounded by underwood and jungle, in which it lurks by day, coming out just before sunset to feed. Occurs on Colombo lake and about Kótté, likewise on Bolgoda and Amblangoda lakes; numerous on the banks of some of the south-western rivers to a distance of thirty or forty miles from the sea. Layard, *loc. cit.*, remarks that it replaces *Ardetta Sinensis* in the north, and appears to have overlooked it in the south. It affects the immediate banks of rivers, hiding during the day under the overhanging bushes and jungle, and is thus likely to be passed over in places, where, as on Gindurah river, it is common.

144. *ARDETTA FLAVICOLLIS*, *Lath.*—The Black Bittern; Layard, *Annals Natural History*, 1855, volume 14, page 113; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

Migratory to the west and south of Ceylon during the north-east monsoon; frequents the swamps in the vicinity of Colombo, where it first arrives; occurs in reedy, grassy spots on the borders of all the lakes of the Western Province. I did not meet with it either in the south-east or in the Trincomalee district. Layard, *loc. cit.*, says it is "not uncommon about Mátara."

145. *ARDETTA CINNAMOMEA*, *Gmelin.*—The Chesnut Bittern. "Nati-Korowaka," also "Meti-Korowaka," *Sinh.*—Layard, *Annals Natural History*, 1854, volume 14, page 113; Kelaart, *Prodromus Faunæ Zeylanica*, page 133.

Western and south-western districts. Common in the Cinnamon Garden fernbrakes and in paddy fields throughout the Rayigam

Kóralé, and in the neighbourhood of Bolgođa and Amblangoda lakes; likewise in the Galle district as far east as Mátara. I did not meet with it in the north-east, but it most likely inhabits that district, which has much in common with the south.

146. *NYCTICORAX GRISEUS*, *Linn.*—The Night Heron. "Ra-Kana Koka," *Sinh.*—Layard, *Annals Natural History*, 1854, volume 14, page 114; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

On the borders of secluded lakes and tanks throughout all the low-country; frequents sequestered spots, living in "colonies" on Amblangoda, Bolgođa, and Tangalla lakes, Sittrawella and Uduwella tanks in the Kataragam country, and similar localities in the north-east.

147. *GOISACHIUS MELANOPHOLUS*, *Raffles.*—The Malay Bittern. *Tigrisema Melanophila*, *Raffles.*—Layard, *Annals Natural History*, 1854, volume 14, page 114; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

An occasional visitor occurred in the vicinity of Colombo in November, 1852, vide Layard, *loc. cit.*; at Aripu in the north-west, during the same month of 1866; and, finally, near Colombo, where the Society's specimen was obtained during last November. It has generally been obtained in marshes, the natural abode of Bitterns, the only exception to that rule having been in the case of Mr. Holdsworth's example, which was found lurking among some thick bushes in his compound at Aripu, and had, in all probability, not been more than a few hours in the Island.

Note.—The occurrence of this Malayan form, in Ceylon, which appears to be migratory to the country with the north-east monsoon, is extremely interesting. It has never yet been procured on the Indian coast, and would seem to be drifted to the south-west from the opposite side of the Bay of Bengal purely by the influence of the wind from that quarter. Its visits certainly are few and far between, and it must accordingly be viewed in the light of an "occasional visitor, and not a regular migrant." It has always, it will be observed from the above remarks, been found here at the beginning only of the north-east monsoon, but this is easily explained by the fact, that birds on first arriving in a new country are always more readily procured than afterwards, when they have wandered into their accustomed haunts. It has moreover been shot, in each instance, on the west side of the Island—that farthest removed from its natural habitat, Malacca, but this, I think, is entirely owing to the absence of any very diligent researches into the avifauna of the east coast during the north-east monsoon or at any other time of the year.

148. *ANASTOMUS OSCITANS*, *Bodd.*—The Shell Ibis “Shell-eater” of the Indian sportsmen. Gombelli-koká, *Sinh.*—Layard, *Annals Natural History*, 1854, volume 14, page 115.

Throughout the low-country, but rare along the western coast. There is a “colony” on the lake near Amblangođa, and the specimen in the Society’s Museum (a young bird) was procured in the Kelani-ganga. Very abundant in the south-east, frequenting Sittrawella, Tissa Maha Rahma, Uđuwella, and other tanks in the Kataragam district, and extending from thence through the Eastern Province. It is rare in the north-east, occurring on Tóppu tank. Probably numerous on the Paderia and other inland sheets of water in the Northern Province.

149. *DENDROCYGNA JAVANICA*, *Horsf.*—The Whistling Teal. “Teal” of Europeans. Saaru, *Sinh.*—*Dendrocygna arcuata*, *Cuv.*—Kelaart, *Prodromus Faunæ Zeylanica*, page 136; Layard, *Annals Natural History*, 1854, volume 14, page 269.

Throughout the whole of the low-country, not extending into the hills. In the Western Province particularly abundant at times, about Bolgođa and on the borders of the Bendođa river; about Mátara and in the neighbourhood of Baddégama in the south; likewise on all the eastern and northern tanks.

150. *PODICEPS PHILIPPENSIS*, *Bonn.*—The Indian Grebe “Dab-chick”; Layard, *Annals Natural History*, 1854, volume 14, page 270; *Podiceps nimor*, *Lathun.*—Kelaart, *Prodromus Faunæ Zeylanica*, page 137.

Common in the Northern, Eastern, and Western Provinces, somewhat scarce in the south. Found on Colombo lake, and numerous on many of the tanks in the north.

151. *STERNA NIGRA*, *Lin.*—The white-winged Black Tern. *S. Leucoptera*, *Temm.*—Holdsworth, *Catalogue Ceylon Birds*, P. L. S., 1872, No. 310.

North-west coast. Procured by Holdsworth near Aripu in May 1860; and a very rare visitor to our shores. *Hab.* “India, China, North Africa, and South Europe.”

152. *HYDROCHELIDON LEUCOPARCIA*, *Natt.*—The small Marsh Tern. *Hy. Indica*, *Stephens.*—Layard, *Annals Natural History*, 1854, volume 14, page 270.

On inland marshes, paddy fields, and tanks in the vicinity of the sea round the whole coast. Abundant also on the salt lakes of the north-east, and extending inland in that part to the tanks of the Vanni district; frequents the salt-pans near Hambantōta; more numerous in paddy fields in the south-west than in other localities; common on Bolgođa lake.

153. (?) *THALASSEUS ORISTATUS*, *Stephen*.—The large Sea-Tern. May be *St. Bergii*, *Licht.*—Hume, "Stray Feathers," volume 1, page 283; Layard, *Annals Natural History*, 1854, volume 14, page 270; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

Chiefly along the west and south coasts. Numerous at Colombo and Galle, and frequenting all parts where there are isolated wells at a little distance from the shore; less so on the south-east, and not so abundant along the north-east coast as the next species.

154. *THALASSEUS MEDIUS*, *Horsf.*—The Lesser Sea Tern. *Thalasseus Bengalensis*, *Lesson*.—Layard, *Annals Natural History*, volume 14, page 270; omitted from Kelaart's list, *Prodromus Faunæ Zeylanica*.

Equally abundant on parts of all our coasts: Aripu, Colombo, Galle, on the west; Hambantota, Batticaloa, and Trincomalee, on the east; the Jaffna peninsula on the north. More numerous than any other species of Tern, with perhaps the exception of *Gelochelidon anglica*.

Galle, 20th May, 1873.

BRAND MARKS ON CATTLE.

BY JAMES D'ALWIS.

CATTLE, as considered by all Oriental nations, are a necessary part of a man's substance. It was therefore that Abraham is said to have been "*rich in cattle*, as well as, in *silver and gold*." (Gen. xiii. 2.) Not only from the esteem in which the possession of cattle was anciently held, as a part of man's wealth, but from considerations of policy the destruction of the animal was prohibited, and visited with severe punishment. In process of time people ceased to kill cattle for food, and cattle-stealing became a crime unknown in the land. The force of this habit however became gradually so strong that the Sinhalese had as much aversion to beef as a Moorman has a dislike for pork. There are not few in this island, especially in the Kandyan provinces, who have not tasted, and would not taste, beef. We have known instances where noblemen, invited to the houses of their friends, have refused to partake of food, simply because there was beef on the table. When, in one of our visits into the interior, many years ago, we accepted an invitation of Mahavalatenne Ratémahatmayá, though the Kumárihāmi of the late Adigar did the company the honor to be present, she nevertheless abstained from partaking any food, simply on account of *geri-mas* 'beef.' '*Gerimaha-gulámálá*' was, as we learn from history, the opprobrious term with which the Sinhalese reproached Europeans for a long time after the British conquest.*

* See Marshall's Conquest of Ceylon.

The laws and usages relating to cattle were universally the same in the East. Those of the Singhalese were particularly identical with the Institutes of Manu.

The principles, as laid down in that primeval law, are briefly as follows:—If cattle, fed and kept in one's house, trespass, by day, the blame falls on the herdsman; if by night, on the owner. But, if the place in which they are secured be different, the keeper alone is responsible for any damage. He, too, is responsible for the loss of a beast, which, for want of due care on his part, has strayed, has been destroyed by wild animals, or has died by falling into a pit. He is exempted from all responsibility when a loss is occasioned by *vis major*; but, even in such a case, he is required to give prompt notice to the owner, and to make diligent search soon after the loss. So great seems to have been the jealousy with which the acts of herdsmen were watched over, that he was required, upon the death of any cattle in his charge, to produce to his master their ears, hides, tails, limbs, &c.—a practice still rigidly observed in all parts of Ceylon, by the production of the hide containing the familiar “brand-mark” of the owner.—*Manu* viii. 299. *et seq.*

The punishment for violence against cattle was the same as if the injury was inflicted on man. The offender received punishment as severe as the presumed suffering; and, where such injury resulted in “hurting a limb, wounding, or fetching blood,” the offender was also to make good the expense of a perfect cure.—*Ib.* viii. 236, 7.

Besides punishment adequate to the offence, which was inflicted in ordinary cases of cattle-stealing, thefts of cattle belonging to temples, &c., were punished more severely.—*Ib.* 324, 5.

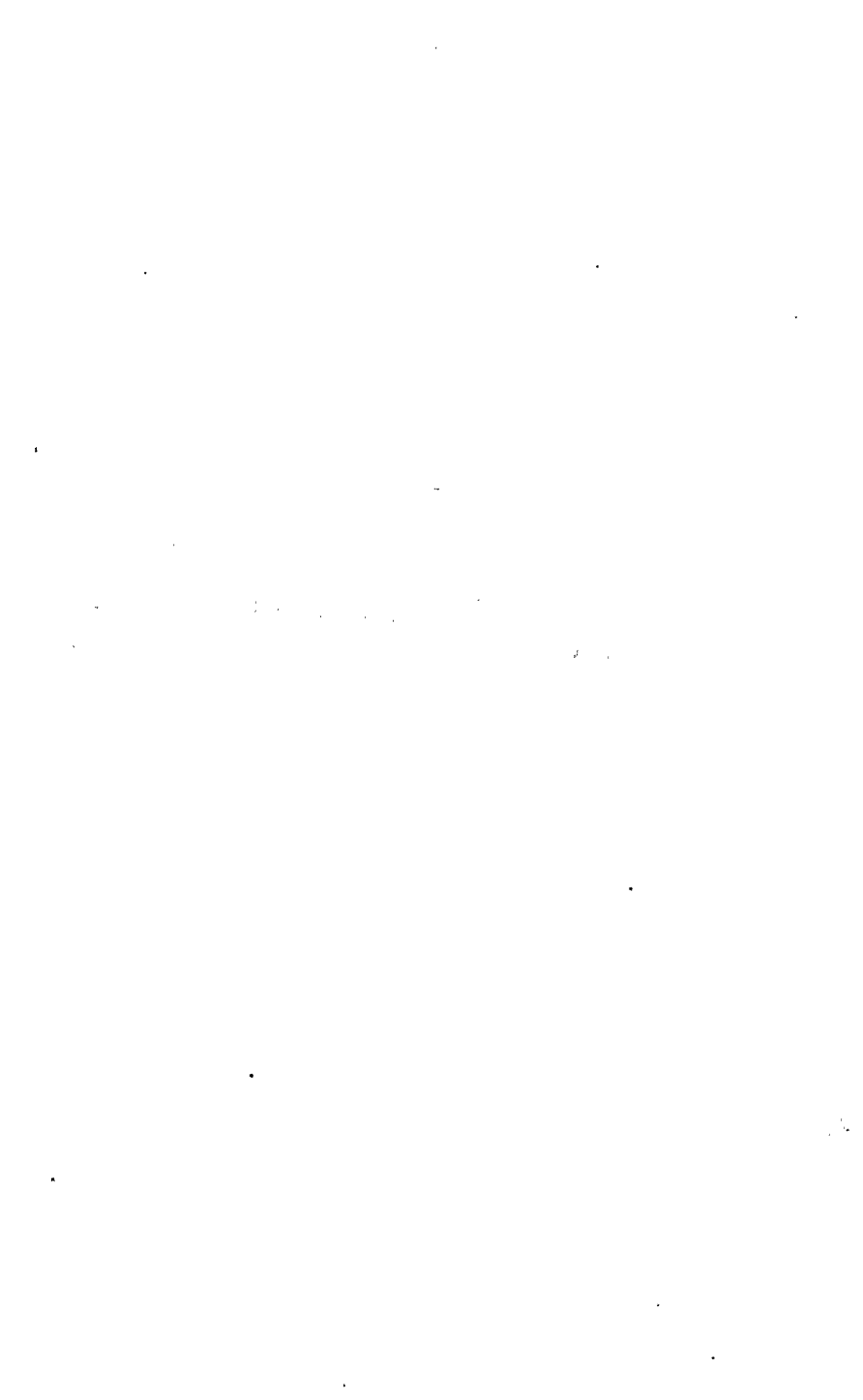
These regulations were not less salutary in a moral point of view—putting cattle-stealing beyond all temptation—than in the promotion of agriculture. Even after the

destruction of the agricultural prosperity of this island by foreign invasions and internal commotions during the long period which preceded the British conquest in 1815, the number of cattle in the Island, as we gather from casual observations of travellers, diplomatists, and historians, was greater at that date than they are now. It is a positive fact that the Island now produces, annually, less than the number slaughtered by honest or foul means. Though, perhaps, the number killed by the butcher exceeds that which falls a prey to the knife of the cattle-stealer, yet, few—very few, people have a correct conception of the great loss which the country, and the interests of agriculture in general, have suffered, and suffer by cattle stealing.

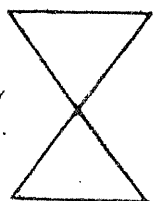
To prevent this great evil, or rather to promote the agricultural interests of the land, various enactments have been ordained from time to time by the legislature of this country. Two proclamations declared it penal to introduce into healthy districts cattle, suffering from contagious diseases. When, in 1816 and 1828 an extraordinary murrain produced an extensive mortality among cattle, the Government unconditionally prohibited the destruction for a time of "cows and cow-calves," under a penalty of Rds. 50. In 1836 cattle-stealing increased so much that the legislature prevented the private killing of cattle by restrictions of different kinds, of which the description of the animal by its "marks" was made a condition precedent for obtaining a ticket authorizing its slaughter. Besides other measures, by which even the possession of beef, unless satisfactorily accounted for, was made criminal, a provision was made by the Ordinance No. 2 of 1835, amongst other things, for the registration and the *branding* of cattle [see cl. 7.] However leniently this law is enforced, the practice of branding cattle is carried on by all parties

REFERENCES

		Page
By Vellalar	from 101 to 14	1
" Mahabutas	" 14 " 17	5
" Fishers	" 18 " 21	6
" (Turnidas	" 22 " 24	8
" Black Smiths	" 25	9
" Carpenters	from 26 to 28	"
" Tailors	" 29	10
" Potters	from 30 to 32	"
" Washers	" 33 & 34	11
" Weavers	" 35	12
" Kichooras	" 36 & 37	"
" Grass cutters	" 38	13
" Berewayas	" 39	"
" Tom Tom beaters	from 40 to 43	14
" Buddhist Priest	" 44 & 45	15
" School Master	" 46 & 47	16
" Cupoorales	" 48	"
" Moormen	from 49 to 51	17
" Paduas	" 52	18
" Moormen of Chitlaw	" 53 & 54	"

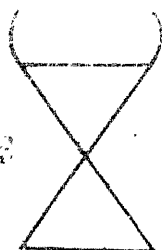


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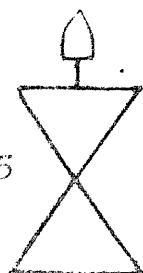
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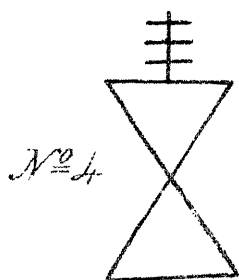
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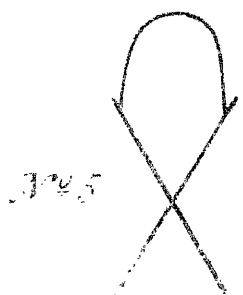
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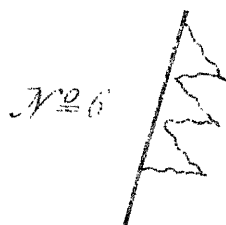
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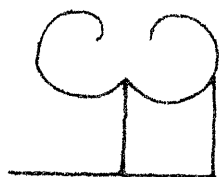
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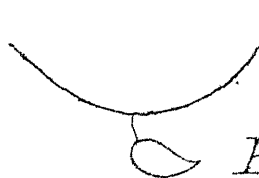
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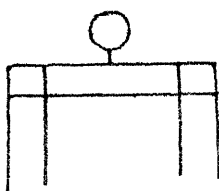
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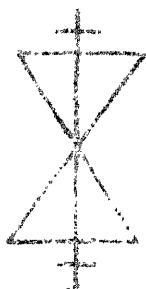


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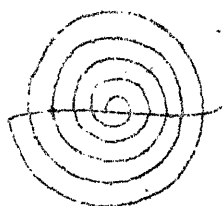
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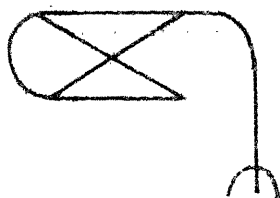
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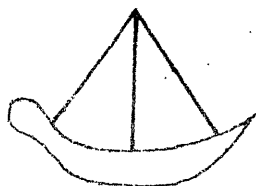
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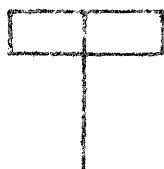
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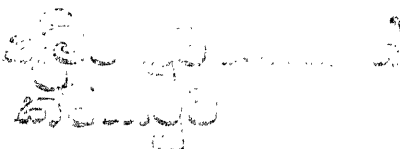
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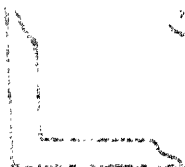
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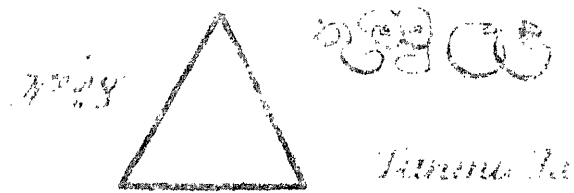


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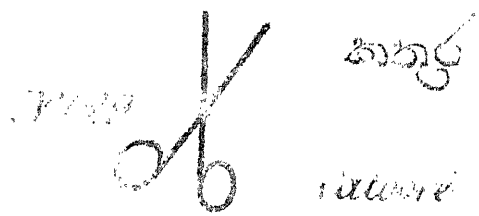


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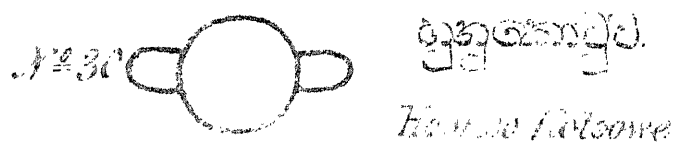
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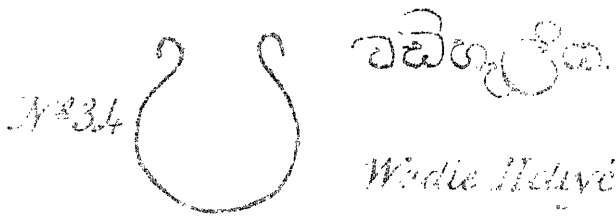
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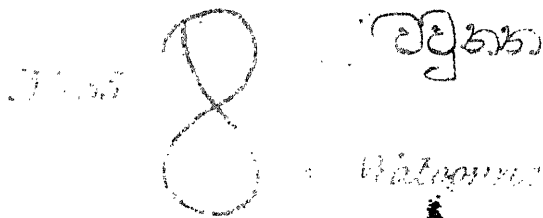


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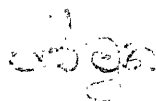


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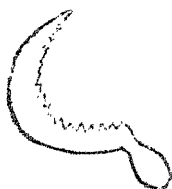


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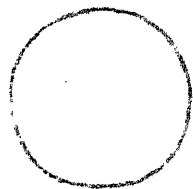


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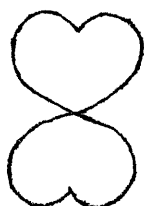
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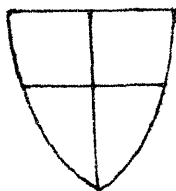


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N^o 49



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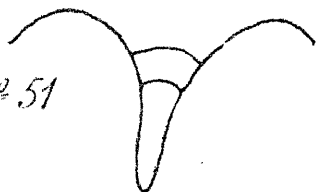
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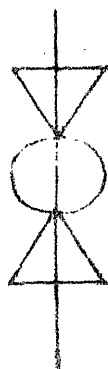
N^o 51



Jamijadoo

By Puluas. N^o 52

N^o 52



Badjam Alle

By Moormen of Chilar

Dagger

N^o 53



Sarnoo Saadoo

N^o 54



Crescent

Ellam Pirrei



as it was done from great antiquity;* and it serves as a more powerful check to cattle-stealing than any which the owner may devise.

Shortly after the enactment in question, when Mr. (since Sir) William Ogle Carr became the Queen's Advocate, he found some difficulty in retaining the different names given for cattle-brands, during prosecutions for cattle-stealing, and requested an officer of the Court to collect the names in a descriptive catalogue. The following is the result of that officer's labours, which I have the honor to present to this Society.

NOTE.

The plates are given in the Appendix in the integrity in which they were found in the original. I regret that I have not been able, as I intended, to add explanatory notes to the names.

* Arrian states that an Indian nation called Sibæ marked their oxen with a club to distinguish them.—Vol. 2, p. 195.

NOTES ON THE OCCURRENCE OF A RARE EAGLE NEW
TO CEYLON; AND OTHER INTERESTING OR RARE
BIRDS. .

BY S. BLIGH, ESQ., *Kotmalé.*

I HAVE the great pleasure of recording the occurrence of that rare and beautiful eagle, "*Limnaetus Kienieri*," of De Sparre, called by Jerdon ("*Birds of India*," page 74) the "*Rufous-bellied Hawk Eagle*." I shot a fine male example of this splendid-looking bird on the 20th October last; and as it has not hitherto been recorded as occurring in Ceylon, and is rare even in India, the following particulars of its capture and description may be of interest and worth recording.

An hour before sundown, as I was walking by the skirts of a narrow belt of jungle surrounded by patanas, I heard the call-note of a Java Sparrow; being desirous of obtaining a specimen, I went in search of it, and soon discovered a small flock of these birds on the top of a very high tree, evidently enjoying the beautiful evening as much as myself after so many weeks of rain, as they were piping their pleasant notes incessantly. Whilst waiting for the chance of a shot, I saw a large bird of prey leisurely sailing just above the trees in circles, in a very buoyant and graceful manner, rarely flapping its wings, evidently hunting for a supper (on dissection the stomach proved to be quite empty). My little terrier was frisking about some thirty yards off, and on arriving over the spot, the bold bird at once altered its flight, hovering in small circles, with a heavy flapping of the wings, evidently with a view of examining the dog—giving me an opportunity of making a clear but long shot. I brought it down with a broken wing. On going to pick it up, I saw it was an unknown species to me. It put itself in an attitude of defence

at once, and a formidable bird he looked, with beak open, head thrown back, wings spread, and talons ready for action, and its beautiful brown eyes looking so fierce. Securing it with some difficulty, I should have wished to have kept it alive, but found the wing too much fractured. I may here remark, as it may not be generally known, that a good plan of killing large birds, when wounded and desired as specimens, is to tightly press the thumb on the trachea just by the roots of the tongue. I killed the eagle so very quickly without injuring a feather.

I look upon the capture of this rare Indian eagle in Ceylon as not only a highly interesting addition in itself, but also as full of promise that some of the more commoner kinds found in India may yet be added to the local list, as yet not half the species of diurnal raptores found in India have been recorded as occurring in Ceylon.

Jerdon records two specimens only as existing in Indian Museums. My specimen agrees most accurately with Jerdon's description as to plumage, but differs in measurement, mine being smaller and a male. I presume his was a female, as the sex of the specimen he describes is not given, the difference being no more than what is usual between the sexes of raptorial birds, the female being the larger. The species may be readily distinguished from others of the same family in the adult state, having but three colours, each well defined and separate, the whole upper parts black, chin, throat and breast white, a few feathers on the side of the breast having oblong streaks or spots of black, the rest of the under parts rufous, each feather having a faint line or streak of black in the centre, excepting those of the tarsus which are much paler and without streaks, the larger under wing-coverts having but a very narrow inner edge and tip of rufous, the rest black form a very conspicuous band of that color across the wing when extended, the base of the crest feathers pure

white, that of the rest of the body not so pure or tinged with grey; I noticed that the bird did not elevate its crest but slightly above the level of the head. Wings when closed reach within $1\frac{3}{4}$ inch of the end of the tail; weight, $1\frac{3}{4}$ lb.; spread of wings, 45 inches; carpal joint, $14\frac{1}{2}$ inches; length, $19\frac{1}{2}$ inches; tail, 9 inches; longest crest feather, $2\frac{1}{4}$ inches; tarsus, 3 inches; greatest spread of foot, 5 inches; depth of closed beak, 1 inch; eye rich dark brown and $11-16$ th of inch in diameter.

A few of the upper wing-coverts and the 5th to the 10th primaries have a decided brownish tinge; the 9th and 10th also have a terminal edge of albescent. These feathers I should say, though quite perfect and shew no signs of abrasion, and are quite consistent with adult plumage, indicate that the bird has lately worn a browner livery. Probably the plumage of the first two or three years may bear a resemblance to that of commoner species, and in which stage may not be readily distinguished from them, and thus possibly this rare bird has been overlooked, and suffered their too often inglorious fate in this Island of being stuck on a tall pole as a warning to their congeners that an Appu's rusty gun is only too ready to protect his master's fowls.

NIKON HIRSUTA, *Temm.*

On the 12th November about noon, when making my way through a dense jungle, I suddenly came upon three owls sitting together on a horizontal branch of a low-tree, well shaded with foliage. The instant they knew they were observed, they dashed off in a sudden manner in different directions. I secured one which proved to be an adult male of this species. Three years since, I received a pair in the flesh from Kótté near Colombo, shewing that it frequents both the low and hill country; they are said to be rare in Ceylon. The above are the only instances I have met

with the species. The stomach contained the remains of beetles and grasshoppers.

CUCULUS CANORUS, *Linn.*:—The “Cuckoo.”

Now the name recalls “Home” and floods the memory with recollections of far different scenes to those where I procured the second recorded specimen of this rare visitor to Ceylon. The only other specimen was procured by Layard near Colombo many years since. My specimen was flitting from bush to bush on the Harangolla patanas, and was very shy. Its stomach contained the remains of large hairy caterpillars.—(Shot on October 7th, a male in good plumage.)

HIEROCOCCYX VARIUS, *Vahl.*

On the 7th of November I shot a male of this species. Its flight is so like that of a small hawk, that I at first mistook it for one. It seems to prefer the skirts of the jungle bordering grass land to the open country. I flushed it several times before obtaining a shot. The plumage is partially moulting. The stomach contained the remains of grasshoppers.

TRINGILLA ORIZIVORA. “The Java Sparrow.”

This well-known cage-bird I believe is often seen in a wild state near Colombo. I have frequently seen them in the jungle here. They are so wild and keep so much to the tops of the highest jungle-trees, in inaccessible places, that I have not yet been able to obtain a specimen. They seem to be quite at home in this wild district, and I think the species is entitled to a place in the future local collection in the Colombo Museum.

ERYTHROSTERNA HYPERYTHRA, *Cabanis.*

So little seems to be known of this lately discovered species, that I watched for its appearance this season with interest, and first observed it on the 12th of October. I heard two on that day in a field of coffee. I was well

acquainted with its call note, having procured specimens in Haputalé in 1869. Not knowing at the time that it had only recently been made known, I looked upon it then as a winter visitor to this Island; now I have no doubt but they leave this for more northern climes for nesting purposes. As I have noticed with many other species of small migratory birds here, so with this; the males precede the females and immature males by several days. By the 24th of the month, their robin-like notes could be heard on all sides, and seemed to be the commonest bird here. Now (18th November) the greater number seem to have moved on, but still they are to be found in every suitable locality. Three or four are now chirping round the bungalow. Their most favourite haunts seem to be thick rocky chenas, interspersed with a few trees bordering on open ground. They are very restless birds; in habit they have much more affinity to the robins and chats than to fly-catchers. Its most common notes are like, "*hwit, jur, tick, tick, tick,*" indifferently uttered, separately or all together, and it has a pleasant little song. When the "*tick, tick,*" is uttered, the bird always elevates the tail, and reminds one most forcibly then of the familiar robin. They are the earliest birds to get up that I know of here; they are early enough to see the bat off to bed, and the other evening when watching one of those creatures breaking its day's fast on a luscious guava, the robin-chat was chirping his goodnight in an orange tree hard by.

[Read 3rd February, 1873.]

EXTRACTS FROM THE RECORDS OF THE DUTCH
GOVERNMENT IN CEYLON.

BY R. VAN CUYLENBERG, ESQ.

I BEG to lay before the Society certain notes I have taken from the Dutch Records preserved in the Government Record Office. They comprise extracts from Minutes of Councils held by the Dutch during some time of their rule in this Island. It may be mentioned that their Council proceedings were always opened with prayer.

November 13, 1658.—At a meeting held this day it was resolved that the Council do place on record their gratitude to God for their success in having conquered the Portuguese. They set apart the 20th of that month as a special day of thanksgiving and supplication for His further aid—to be observed by all, under a penalty of one hundred Rix-dollars for neglect of the order. Clergymen required to announce the same from their pulpits.

My next extract is from a Minute of Council bearing date the 10th June, 1659, where the Council after due deliberation on the subject of the welfare and prosperity of the Dutch and Native Burghers come of opinion that it was principally owing to their general apathy that their means were small and accordingly suggest a remedy. They propose that the body of Burghers should have a Captain over them. The qualifications necessary for a person holding this position having been discussed, it was agreed that George Blume the Captain of the Cinnamon Department be selected to fill the post, he being a man of active habits, and one possessing an intimate acquaintance with the people of the country and would be sure to incite them to the pursuit of useful and honest occupations.

Another measure brought before the Council on this day was one having reference to the baking of bread, and it was ruled that the best white bread should weigh 8 ozs., and mixed brown bread 16 oz., and that the price of a loaf was to be 2 stivers* when the parrah of wheat was sold at Rds. 1 18 stivers. Eight Dutchmen and eight Natives (whose names are mentioned) were to have licenses as bread-bakers, and the Captain of the Burghers was to make inquiries and find out what was the number of Christians who were engaged in baking bread, and none were for the future to have licenses to carry on this trade unless they were known to be pious men and regular attendants at divine worship.

20th December, 1659.—At a meeting held this day it was brought to the notice of the Council that out of those villages in the Belligam and Galle Kóralés that yield a revenue to Government, no less than sixty were found to be inhabited by dancing women and other useless people by which the Company suffered a loss. It was therefore decided that they be expelled from thence, and that 300 recently enlisted Lascoryns be sent there on a monthly allowance of one laryn each, and one parrah of rice.

May 24, 1664.—At a meeting held this day it was decided that all Storekeepers and Cashiers employed under Government were to be called upon to give security for the due discharge of their duties, and when neglect of duty was brought home to them they were to be deprived of situation and rank and employed as soldiers.

July 18, 1664.—It was brought to the notice of the Council that there were frequent complaints by Clergymen of the evils resulting from the practice, which was daily gaining ground, of Dutch soldiers marrying women of the country.

* Stiver—a Dutch coin of the value of 2 cents.

and it was resolved that these marriages should not be permitted to take place for the future, unless a certificate from the Clergyman was produced shewing that the woman professed the Christian religion.

It was also ruled that native women, wives of Dutch soldiers, were to be required to attend the weekly services of the church. The penalty for neglect of this order was that their husbands should forfeit their wages.

October 4, 1667.—Amongst other things that came before the Council on this day was the subject of agriculture in the Galle District, and it was resolved to reward those who were chief in promoting the same in the following manner.

To the Commander, a silver jug weighing 200 Rds.

To the Dissawe, a silver gorget and tray weighing 35 Rds.

To his Assistant, 150 Rds. in cash.

To Lieut. Hans Jacob Boeff, 100 Rds. in cash.

To the Native Chiefs, 150 Rds. in cash.

I BEG to place before the Society certain notes I have made from the Dutch Records, in continuation of the paper presented by me on the 3rd February last. They comprise Minutes of Councils held by the Dutch from November, 1667, to August, 1669.

November, 1667.—The Council resolve to purchase the house of the late Assistant Engineer, Adriaan de Leeuwe, situated in the east end of the street called Prince Street east of the Fort of Colombo, in breadth along the street over against the Fort, six Renish (?) roods, and in length along Prince Street, fifteen roods, for the sum of Rix-dollars 875*. This is interesting as serving to shew the value of property at that time as compared with the present.

* A rix-dollar = usually from 4s. to 4s. 8d.

November, 1667.—The Council permit Adriaan Baach, as a special favour, to disembark some rice brought from Tutu-coreen, the same being contrary to express orders and very detrimental to the progress of cultivation here.

The Council receiving an application from one Clara Van Der Hart, requesting that she may be exempted from paying the duty of 20 per cent., on imported cloth, grant her request, but on the distinct understanding that for the future none should be exempted.

January, 1668.—The Council learning that the ship “Vlaardingén” was sea-worthy, resolve to despatch her to Holland with a cargo of Saltpetre, Pepper, and Cinnamon, along with two other ships. These three vessels to be manned with 185 to 190 men, and to be supplied with all the necessaries for a ten months’ voyage.

It is also resolved that the two ships, the “Wassende Maan” and the “Wapen Van Der Jour,” that have arrived from Amsterdam, were to be sent back laden with Pepper, and one of them was to carry a chest of Pearls of the late fishery that was bought in for the Hon’ble Company at 38,552 guilders.* The Council moreover learning that these two vessels had performed their voyage to Ceylon in seven and six months respectively, direct that the half reward of 300 guilders be given to the former, and the half reward of 600 guilders to the latter, as ordered by the Hon’ble Company, which was to be expended in procuring necessaries for the return voyage.

The Council also set apart the 2nd of February as a day of supplication and fasting, owing to the departure of these ships for Holland.

The Council learning with pleasure that a new arrival by one of these vessels, in the person of Serjeant Cornelius

* Guilders, Dutch coin=38 cents, or 1s. 9d., Rs. 14,661 and 16 cents.

Seybol, was a Lawyer and an Advocate, it was decreed that he be made a member of the Council of Justice, and receive the salary of a junior merchant.

March, April, 1668.—Amongst other instructions by the Council on ecclesiastical matters, were the following. The native languages were to be learnt by all Clergymen. The Sinhalese and Tamil languages were to be used instead of the Portuguese, which was to be discontinued.

Slaves were not to be permitted to wear hats or long hair, who were not able to speak the Dutch language intelligibly.

August, 14, 1668.—The Council on hearing that certain fishermen were about to relinquish their calling, and being of opinion that the same would be prejudicial to the public, appoint a Committee to revise the list of the fishers, and to enjoin these men to continue to pursue their calling according to ancient usage.

May, 1669.—The Council finding that the cocoanut plantation at (Souti Tangh) yields a revenue of not more than 1,260 rds. per annum, against an outlay of 620 rds. per mensem. resolve on renting it out to the Burgher Louis Tramble at 900 rds. per annum from the 21st June next to the end of February, 1671.

July, 1669.—The Council offer a reward of 400 laryns* to the person who shall produce the body of a certain murderer, alive or dead.

August 5, 1669.—The Council commute the sentence passed by the Court of Justice on Cappure Camby Chetty of Hunnupittia for adultery, which was, that he be hanged by the neck until he is dead, and his corpse be put into a sack and thrown into the sea: thus—that he be whipped severely beneath the gallows, branded and banished from the Island, and interdicted from returning to it on penalty of forfeiting his life.

* Laryn. —A Portuguese coin.

THE STATURE OF GOTAMA BUDDHA.

BY JAMES D'ALWIS, M. R. A. S.

THERE is no statement in any part of the Buddhist Canon regarding the stature of Buddha, or the ordinary stature of man in his age. Nor, so far as my investigations have extended, have I found any allusion to them in any of the Commentaries to the Canon. Dimensions, however, are recorded of habitations, furniture, clothes, &c., designed for the priesthood; and they are generally expressed by the terms "sugata vidatthi." At the place, where it is first mentioned (vide *Vinaya Pīṭaka*, lib. 1, chap. 4) Buddhaghosa defines the measure thus:—

Sugata vidatthi nāma idāni majjhimassa purisassa tisso vidatthiyo vaddhakī hatthena diyaddho hattho hoti—i. e. '*Sugata vidatthi*, is three spans of a middle-size person of this (age), and one and a half cubits by a carpenter's cubit.'

Upon the above authority, and on the supposition, I believe, that by sugata, "Buddha's" was meant, the calculation of his height is in this wise. Taking Buddha's span to have been the length of "three spans of an ordinary person," and giving nine inches to the ordinary span, the *sugata* span is put down at (three by nine, equal to) twenty-seven inches. Two spans being generally considered to be a cubit, or the length of the lower-half of a man's arm; and four times that length being the average height of a well-proportioned man—Buddha's stature is said to have been (twenty-seven \times two \times four, equal to two-hundred and sixteen inches, or) eighteen feet.

It is not easy to ascertain with precision if Buddhaghosa in his gloss meant, by sugata vidatthi, "Gotama Buddha's

span," and thereby intended to give his height. He does not anywhere state, on what authority he, nine and-a-half centuries after the sage's death, fixed the standard of this measure, by which he would assign to Buddha's stature three times the average height of a middle-size man of his age. It is indeed extremely doubtful, that in this explanation he simply translated what Mahinda had previously stated in his Siphalese Comment; for Buddhaghosa unquestionably refers to the size of a span of *this, i. e.*, his age; and it will be observed, that 700 years had then elapsed since Mahinda wrote his Siphalese Commentary. That Buddhaghosa was therefore led into an error, from a misapprehension of the expression *sugata*, there is less reason to doubt, than that he was misled by any traditional account that might have come down to his own times; for, there is abundant testimony in the *Tepitaka* to prove that Gotama was an ordinary man of his age. What, therefore, was the height of man in the 6th century B. C., or what was meant by *sugata vidatthi* in the *Institute* already noticed, will form the subject of investigation in this paper which I respectfully submit to this Society.

Anciently people wrote the most extravagant things of man and his nature. Their books abound in the marvellous. We read of giants, and gigantic men. Even the Old Testament, using the current phraseology of the times, alludes to them in different places, in the same way that the *Mahavansa* speaks of them as once existing in Ceylon. But, I believe it may safely be affirmed that these giants were no more gigantic than the *Yakkhas* of *Mahanama*; or that the latter were no more devils than the "evil demons," who, according to Buchanan's *History of Scotland*, "having been allied to the daughters of Dioclesian, begot giants, whose descendants remained even at the landing of Brutus." The giants of the Bible, and the *Mahavansa* were

doubtless extraordinary men, both in stature, valour¹ and strength, like a Nimrod, a Níla, or a Porus.² That they were great in stature we readily believe; but that they were three times taller than men are at present, to say the least, has not been proved. That "the mighty men of old" were in stature greater than mankind of the present day, may, moreover, be conceded on the ground that they were also long-lived. But, when the average age of man came down in round numbers to 100 years, that man generally retained his abnormal stature cannot be easily credited. All that can be safely predicated of such, is, that people of extraordinary stature have appeared from time to time, like men of extraordinary mental calibre. Not a single statement in any book authorizes the conclusion that mankind were altogether gigantic in stature after the date assigned to the flood. If Goliath was ten feet seven inches high,³ Moses was by no means of the extraordinary height which he records. If, again, the ten warriors of Dutthagámini were

¹ Mahawanso calls them "warriors," p. 137.

² Arrian says that when Alexander saw Porus "he stopped his horse, and was seized with admiration at his tallness, for he was above five cubits." Five cubits are equal to about seven and half feet of our measure. Plutarch, p. 37, says, that, according to most authors, he was reckoned to be four cubits and a hand's breadth; but Raderus thinks that his four cubits ought to be five; because Eustathius in his notes to Dionysius, ver. 1027, tells us, that many of the Indians were above five cubits high. Curtius gives us no certain rule by which we may guess at his stature, he only affirming, lib. viii., chap. 13, 7, "that Porus exceeded the common height of men, and that his elephant as far surpassed the rest of the elephants in bulk, as he did the rest of his army in strength and stature." Diodorus, p. 559, adds, that "his body was so big, that his breast-plate was twice the dimensions of the rest."—See *Arrian's History of Alexander*, vol. ii, p. 37.

³ 1. Sam., xvii., 4.

strong men, it is nowhere stated that they reached even the alleged height of Goliath.

It may be perfectly true that, anciently, men varied in stature in different regions of the world, as they do now. Those who were of Anak's race might have been of such extraordinary height that the Israelites looked like grasshoppers before them.¹ Some of the European nations may excel the Londoners of the present day. So likewise, the Indians might have been a well formed people, measuring much above the average height of other nations. We may go farther, and admit, that even in one and the same region, the distinctive character of each race of man was, and is highly variable.² It has been also noticed that there was a difference in stature between the Polynesian Chiefs, and the lower orders within the same islands.³ In like manner, the Prussian Grenadier Guards present a striking difference to the rest of the same nation. Further, the self-same Indians of the time of Alexander, as Arrian states, were "taller in stature than all the rest of the Asiatics."⁴

But, we can by no means believe that they were eighteen feet high. For, the utmost height which the self-same historian gives to "many of them" (*i.e.*, the class of Indians just above described) is "little less than five cubits." Five cubits, however, is not a very marvellous height of man even in modern times.

The result of modern investigations is, that the tallest man who ever lived was no more than nine and-a-half feet high. The skeleton that was found on the site of the

1 This is simply a form of expression, or figure of speech to heighten the idea of extraordinary height.

2 Darwin's *Descent of Man*, 1, p. 225.

3 *Ibidem*, 115.

4 Arrian's *History of Alexander*, vol. ii., p. 9.

Roman camp at St. Alban's was only eight feet high.¹ A Swede, once in the Prussian army, was found eight and-a-half feet high. Charles Byrne, or O'Brien, an Irishman, whose skeleton is in the Museum of the College of Surgeons, London, was eight feet four inches high when alive.²

Now, there is no satisfactory evidence to shew that Gotama exceeded in height, any of the above persons. Nor, on the other hand, can we believe that he was of the height of the "many" Indians, whom Arrian describes as having been "little less than five cubits high;" for, he is unquestionably represented in the Buddhist canonical works, as we shall hereafter shew, as an *ordinary man* of his age; and Arrian himself records that "five cubits" was such an extraordinary stature, that Alexander the Great "was seized with admiration" (amazement?) at the tallness of Porus (for he was above five cubits high), as well as at his beauty, and the justness of the proportion of his body."

The maximum age to which people lived in the times of Gotama was in round numbers one century;³ and it is the same that is assigned in Buddhist works to men of the present day. The fact is indeed undoubted, that he had not attained the age of a Mathusela, or that of any other antediluvian, or other ancient personage mentioned in Buddhist works; or much less the age of Henry Jenkins of Yorkshire, who was 157 years old at his death in 1670.⁴ For, Gotama died in the "fulness of time," when he was only "four-score" years of age; and it must be borne in mind that the

1 Philosophical Trans., No. 333.

2 Penny Cyclopedia.

3 See *Parinibbāna Sutta*, translated by Turnour in the Bengal Asiatic Society's Journal.

4 See Lardner's Annual Physics, p. 693.

Buddhists nowhere venture to state, that the people generally of the age of Gotama were eighteen feet high. We shall now turn our attention to some of the legends regarding Gotama Buddha.

i. It is said that Nanda, Gotama's foster brother, who was four *aṅgulas* shorter than Gotama, wore a robe in size equal to that of the sage.

ii. More authorities than one, consisting of the Canon and the Gloss., mention the fact that Gotama exchanged robes with Mahá Kassapa; and that they both used the robes of each other.

iii. It is expressly stated that Mahá Kassapa was a middle-size man of his age.

iv. When king Ajátasattha visited Maṇḍamálaka, the monastery in Jívakambavana in Rájagaha, he saw, and entered the presence of a large concourse of priests surrounded by Gotama; and yet, seeing nothing extraordinary in Gotama different from those by whom he was surrounded, asked an Ajívaka *where Buddha was?* The Ajívaka replied, "Mahárāja, he is the same (person), who, facing the east, and leaning against the central pillar, is seated, surrounded by the bhikkhus and saṅghas."

v. There appears to have been so little, if any, difference between Gotama and his disciples, that when the Bráhmaṇa Sundarika Bháradvája saw Gotama with his head covered, he approached him, mistaking him for one of his fraternity; and, when he afterwards saw his bald head, the Bráhmaṇa left the sage in disgust.

vi. When king Pukkusáti of Takkasilá heard of the great renown of Gotama Buddha, he went down to see him; and on his way, met the sage in a public hall, and entered into conversation. It was not until they had spoken together for a good while that the sage was recognized. Nor even then was it, indeed, from any personal characteristic

which distinguished him from the rest of mankind. It was after he had been told of the fact.

Without multiplying authorities to prove, what is already manifest, that Gotama Buddha was an ordinary man of the 6th century B. C., we may now proceed to consider the passage in the Vinaya, from which it is inferred that he was eighteen feet high.

This inference is drawn, it is believed, from a misapprehension of the meaning of "*sugata*" in *sugata vidatthi*.

Sugata, it is true, is an appellative for Gotama. The Buddhists in Ceylon, following the definition of Buddhaghosa, interpret *sugata* as "Bauddha" or "Buddha's," and *sugata vidatthi* as "Bauddha span," or "Buddha's span." A little reflection, however, must convince the reader that such could not be the meaning of this word. Gotama was a man either of extraordinary, or ordinary stature. If the former, and if moreover by *sugata* his *ownself* was meant, it is quite clear the measures given by the phrases *sugata vidatthi*, and *sugata aṅgula*, were exceptional, and therefore conveyed no correct notion to any person who had not previously known the exact size of Buddha's hand or finger: and it is remarkable that *that* measure is not stated by the law-giver in any part of his Canon, which was intended for priests scattered about in different parts of the Majjhimadesa,—some of whom had never seen the sage,—and for priests who might come into existence centuries after his death. We are, therefore, constrained to distrust, that he meant by *sugata vidatthi* his own span—the size of which is not stated. That he did not mean the ordinary span, which might vary from age to age is sufficiently proved by the use of *sugata* before *vidatthi*.

On the other hand, if, as we may abundantly prove, Gotama was an ordinary person of his age, it is simply absurd to believe that he would speak of an ordinary

common measure by reference to his own span; or by qualifying it by the word *sugata*. It would be far more reasonable to believe that he had referred to a particular measure in use, or to any other that was then sanctioned by usage or authority. Indeed it may be believed that he meant, not an ordinary measure, but one of several measures which were known in his time. It may be then inquired; if *sugata* does not mean *Bauddha*, can it have any other sense? We are not at a loss to assign to it that "other sense." *Sugata*, from *su* 'well,' and *gata* 'taken, received, accepted,' besides being a name for *Buddha*, means 'approved,' 'accepted,' 'well received;' equal to 'standard, imperial.' With this interpretation before us let us investigate the meaning of the expression *sugatassa* and *sugata* in the following passage in the *Vinaya*, lib. 2, chap. i., section 5.

Yo pana bhikkhu *sugata* *cīvarappamānaṃ* *cīvaraṃ* *kārapēyya* *atirekaṃ* *vā* *chedanaṃ* *pācittiyaṃ*—*tatrī* *daṃ* *sugatassa* *sugata* *cīvarappamānaṃ* *dīghaso* *nava* *vidatthiyo* *sugata* *vidatthiyā* *tiriyaṃ* *cha* *vidhatthiyo*—*idaṃ* *sugatassa* *sugata* *cīvarappamānaṃ* . . *ti* .

Before critically examining the meaning of *sugata* in the above Institute, it is necessary to examine the cause which led to its enactment. Nanda, Buddha's foster brother, who was a priest, once wore a robe as ample as the one usually worn by Buddha. Other priests, seeing Nanda at a distance, and mistaking him for Gotama, evinced the usual marks of respect; but soon found out their mistake, and expressed their disapprobation of the conduct of one of their fraternity. Now, it was to meet the wishes of those who had been deceived, that Gotama enacted the above rule. If then we translate *sugata* as *Bauddha*, the above rule will run as follows:—

"Should a priest cause to make a robe of the size of Buddha's robe, or in excess, [he would commit] *Pācittiya*, and [the excess]

should be cut off. Here; this is the size of Buddha's *bauddha* robe—nine vidatthi long in Buddha's vidatthi, and six in width. This is the size of Buddha's *bauddha* robe."

From a careful perusal of Buddha's edicts we find that, where one matter or thing is stated in one set of words, the same set of words is repeated, as in an old act of Parliament, where the same matter or thing is again referred to. In the edict before us, however, we have a deviation from this principle of Buddhist composition. We have *sugata cīvara* in the beginning, and *sugatassa sugata cīvara* twice repeated afterwards. But, where vidatthi is mentioned *sugata* alone occurs here as elsewhere,—shewing clearly an omission of *sugatassa* before the first *sugata*; and shewing, moreover, that a different meaning was intended by *sugata* when used adjectively. If we render *sugata-cīvara* as Buddha's robe, we can assign no meaning to the word *sugatassa* which precedes the expression. That word, moreover, is a noun in the genitive case, and is not given as an attributive of *cīvara*, which *sugata* is. Taking then *sugatassa* to mean "Buddha's," *sugata* which follows must have a different meaning, and we perceive no reason whatever not to assign to it the meaning of "the accepted," in the sense of the "authorized robe," i.e., the robe approved by usage, or prescribed by rule.

By supplying the supposed omission, which, I must not omit to state, is found in all the books, to which we could gain access—and assigning to *sugata* the meaning of 'approved,' or 'the imperial,' the Pali text may be translated, thus:

"Should a priest cause to make a robe [exactly] to the dimensions of Buddha's approved robe, or in excess, he shall be guilty of *pācittiya*; and the excess [over the prescribed dimensions¹] shall

1 We have supplied the words by reading the text in connection with the following rule, which prescribes the dimensions of a priest's robe:

be cut off. Here,—this is the size of Buddha's approved robe,—nine vidatthi long, in *imperial* vidatthi, and six in width. This is the size of Buddha's approved robe."

Applying, therefore, to the word *sugata* the same sense when it is added to *vidatthi* or *aṅgula*, we cannot, we apprehend, be far wrong if we interpret *sugata-vidatthi* as the "accepted span," "the legally prescribed span," as opposed to "the span measured by the extended thumb, and little finger."

Let us then venture to ascertain what this, if I may so call, *imperial* measure was? It is stated that twelve *aṅgulas* make a *vidatthi* or span; and two *vidatthi*'s a *hāstha*, [or *ratana*, Pāli] 'the lower half of the arm.'

Vidatthi is a Pāli form of the Sanskrit word *vitasthi*. It was a measure known to Brāhmins as well as Buddhists. According to both, it is "a long span, measured by the extended thumb and little finger"; *Asvalāyana Grihyas* iv. 1. Both are agreed as to a *span* being considered "equal to twelve *aṅgulas* or fingers." [i. e., finger's breadth.]

Now, to determine the exact value of *aṅgula* mentioned in any system of lineal measure, one must naturally look to the unit from which it is raised. This unit, according to the *Abhidhānapadīpikā*, is a *likkhā* or dot; and, according to the *Amarakōsa*, a *yava*, or "barley corn." It is however impossible to form a correct idea as to what this *likkhā* was, or what was the size of the *yava*, "proceeding downwards to the *paramānu*, or the 'most minute atom,' according to the authoritative works of the Hindus."¹ The Greek writers on India have given extraordinary accounts of the size of

Pacchimantena saṅghāti dīghato mutthi pañcakag

Mutthitikaṇ ca tiriyaṇ tato ūṇaṇ navattati:

'The outer robe [shall be], at least, five short (cubits) in length, and three short (cubits in width—less (shall be) unlawful.'

¹ Princep's Ind. Antiq., vol. ii. Part 2, p. 122.

grains: Herodotus speaks of "a sort of Indian seed about the size of the panicum in a cod."¹

Being thus compelled to abandon all attempts to arrive at a satisfactory conclusion by "beginning from the beginning," we shall next resort to some intermediate measure, which, as it refers to, and is descriptive of, a member of the human body, may be looked upon as the basis of all measures in ancient times. This is *anṅula*, or finger being one-twelfth of a *vidatthi* or span—twice its length being equal to a *hāstha*, Sam., or *ratana* Pāli, "a cubit." Princep, in his *Useful Tables*, treating on the subject says, "That the cubit was of the natural dimensions (of eighteen inches more or less) can hardly be doubted. [?] Indeed, where the *hāth* is talked of, to this day, among the natives, the natural human measure is both understood and practically used, as in taking the draft of water of a boat, etc. In many places also, both in Bengal and in South India the English cubit has been adopted as of the same value as the native measure."² Here, it may be conceded that the *hastha* was also of the natural dimensions of the lower half of an ordinary well-proportioned man's arm; but, we are not therefore warranted in putting down its length in ancient times as having been *eighteen inches*, especially in an investigation to ascertain through its means, the stature of ancient Indians, which is variously stated by different writers. And this difficulty is the more increased, when we find that the linear measure in ancient India was totally altered during Akbar's administration, and that "the introduction, since, of European measures in the British Indian territories, and in the Dutch and Portuguese settlements before them"³

¹ Herodotus, *Thalia* iii., § 100.

² Princep's *Ind. Antiq.* ii., Part 2, p. 122.

³ *Ibid.*

has contributed not a little to confound all calculations upon the basis of the natural dimensions of the *hâstha*.

It is, therefore, I apprehend necessary that we should fall back upon *añgula* "finger's breadth." Upon this too, no accurate calculations can be made. For that too must have varied according to the size of the men of a particular age or locality. Treating on this subject, says Thomas in his Useful Tables :

"The *gaz*, or yard, now in more general use throughout India, is of Muhamniadan introduction: whether this is derived also from the cubit (for the Jewish cubit is of the same length) is doubtful; but, like the *hasta*, it was divided into 24 *tasûs*, or 'digits,' corresponding more properly to inches.

"Abû-'l-Fazl in the 'Ayin-i Akbarî,' gives a very full description of the various gaz in use under the emperors, as compared with the earlier standards of the Khalîfs. He expresses their correct length in finger's-breadths, which may be safely taken as three-quarters of an inch each.

"For facility of reference, his list is here subjoined, with the equivalents in English measure at this rate :—

ANCIENT GAZ MEASURES ENUMERATED IN THE 'AYIN-I AKBARÎ.'

The Gaz-saudâ of Hârûn-al-Rashîd = $24\frac{2}{3}$ (some MSS.

have $25\frac{2}{3}$) fingers of an Abyssinian slave, the same *English*.

used in the Nilometer of Egypt¹ = $18\frac{1}{2}$ in.

The Kasbah gaz, of Ibn Abîlîlah = 24 fingers = 18 „

The Yûsufî gaz, of Baghdâd = 25 „ = $18\frac{1}{4}$ „

1 The cubit of the Nilometer is supposed to be the same as that of the Jews, which is exactly two feet English:—if so, the 24 digits will be, precisely, inches. Volney, however, makes it $20\frac{1}{2}$ French, or 22 English inches. Some allowance must probably be made for the broad hand of a negro, but the other measures will not be affected by the same error, as they must be referred to the ordinary delicate hand of a native of Asia.

		English.
The small Hashamah gaz ¹ of		
Abú Músa Asharí.....	= 28 $\frac{1}{3}$ „	..... = 21 $\frac{1}{4}$ in.
The long Hashamah gaz of Man-		
súr 'Abbás.....	= 29 $\frac{2}{3}$ „	..... = 22 $\frac{1}{4}$ „
The Umriah gaz of the Khalif		
Umr	= 31 „	..... = 23 $\frac{1}{4}$ „
The Mámúfah gaz of Mámún		
'Abbási	= 69 $\frac{1}{2}$ „	..... = 52 $\frac{1}{8}$ „
The gaz Masáhat.....	= 28 „	..... = 21 „
Sikandar Lodi's gaz of 41 $\frac{1}{2}$ silver		
Sikandarís' diameter, modified		
by Humáyún to 43 Sikandarís = 32 „		..... = 26 „
This was used in land measurements till the 31st year of Akbar."		

Major-General Cunningham² also puts down the Indian *angula* at "somewhat under three quarters of an inch," and adds :—

"By my measurement of 42 copper coins of Sikandar Lodi, which we know to have been adjusted to fingers' breadths, the *angula* is '72976 of an inch. Mr. Thomas makes it slightly less, or '72289. The mean of our measurements is '72632 of an inch, which may be adopted as the real value of the Indian finger, or *angula*, as I found the actual measure of many native fingers to be invariably under three-quarters of an inch. According to this value the *hasta*, or cubit, of 24 *angulas* would be equal to 17·43168 inches, and the *dhanu* or "bow," of 96 *angulas* would be 5·81 feet. But as 100 *dhanus* make one *nalwa*, 100 *nalwas* make one *krosa* or kos, it seems probable that the *dhanu* must have contained 100 *angulas* to preserve the centenary scale.³ According to this view

1 These two are also called the Gaz Mulík and Gaz Zíádíah, because Zíád, the adopted son of Abú Sofián, made use of them for measuring the Arabian Irak.

2 See his Ancient Geography of India, p. 575.

3 The same confusion of the numbers 96 and 100 exists in the monetary scale, in which we have 2 *bāraganis*, or 'twelvets,' equal to 1 *panchi*, or 'twenty-five.'

the *hasta*, or cubit, would have contained 25 fingers instead of 24, and its value would have been 18·158 inches, which is still below the value of many of the existing *hastas*, or cubits of the Indian Bâzârs."

That this measure falls very far short of the Buddhist vidatthi may be proved by the following references to the Vinaya.

1. A priest's habitation should be twelve by seven spans from wall to wall.—*Vide* lib. 1, cap. 2.

Taking a span or vidatthi at nine inches, the room will prove to be nine, by five and a quarter English feet. Though Gotama enacted this rule with a view to economy, and to shew that large spacious halls, which his followers "had been unable to complete," were inconsistent with the "beggarly" character of the monastic system which he founded; yet, on the other hand, I am inclined to believe that he could have scarcely considered that an apartment of nine by five and-a-quarter feet would be sufficient for the occupation of a priest. At least, the width is such as to render it fit for nothing more than stretching one's self down to sleep.

2. The height of a bed or chair should be eight *aṅgulas*.—*See* lib. 2, cap. 1, rule 5. At the above rate of calculation this height will represent six English inches. There is no doubt that the object of this rule, as stated in the legend, was the prevention of "high seats,"—but at the same time we cannot help thinking that a seat above six inches from the ground was inconveniently low.

3. The regulated dimensions of a cushion or carpet are two, by one and-a-half spans, which will be equal at the above rate, to eighteen, by thirteen and-a-half English inches.

This may not appear to be an unreasonable or inconvenient size, representing as it does the size of an ordinary chair of the present day, but it is very remarkable that the very

rule which follows the above provides for an enlarged cushion or carpet. The reason stated in the legend is not without importance. A priest by the name of Udayi once sat upon a cushion of the above dimensions, and it was thoroughly covered over by his robes, and Buddha altered the above rule by

4. Adding 'a span of fringe to the above dimensions'.—*See* lib. 2, cap. 1. This will raise the dimensions to twenty-seven by twenty-two and-a-half inches—a space which certainly suffices for the stoutest man to occupy. But the next rule, as well as the first, which we have noticed, suggests the propriety of an increased standard for the measurement of the vidatthi.

5. It was necessary to provide for those afflicted with cutaneous diseases, with an under-shift, *i. e.*, a coil of cloth round the loins; and the prescribed dimensions of this is four by two spans;—*See* lib. 2, cap. 1, rule 8.

This in English measure will be three feet by one and-a-half feet. Supposing that the object was to prevent the robes being saturated with matter in that part of the body which is generally put into action by sitting down, it is not reasonable to believe that three feet correctly represented the rotundity of an ordinary man; and from experience in this country, we find that that length is barely sufficient to go round the broader part of an ordinary man's body.

6. In examining the provision as regards a bath-cloth of a priest, we find it to be six by two and-a-half spans, or four and-a-half feet by twenty-two and-a-half inches.

The twenty-two and-a-half inches represent the width, that is the space between the waist and the knee; and though four and-a-half feet would be just sufficient to cover the nakedness of the body; yet, it will be granted, that in order to give to all these rules as a body, reasonable effect, we must raise the standard of our measure; especially in

view of the same rule, as adapted to the priestesses, which is—

7. That the bath-cloth of a bhikkunī should be four, by two spans, or three feet by one and-a-half feet.

This is ridiculously low according to our modern notions of propriety. Making all allowances for the narrow and illiberal views of society in general in remote antiquity, and the contempt with which woman was held by mankind in those days, Gotama Buddha not excepted,—we may not be surprised, that, in regulating the size of the garments for women, the sage reduced the dimensions prescribed for the males. Yet, judging from the great good sense which predominates his social ascetic system, we are justified in expecting from the law-giver a rule by which he effectually carried out the object for which a bath-cloth was at all provided—the concealment of shame. Bearing in mind that ablutions in the age of Gotama were performed in public places, and at open ferries (see *Vinaya* lib. 4) we certainly think that the same dimensions of a wrapper, intended as an under shift in the case of males afflicted with cutaneous diseases [vide *Supra*, Case 5], would scarcely suffice for women bathing at public rivers. Not only this, but the following rule which regulates the size of Buddha's robe clearly indicates that the standard of our measure should be raised.

8. The size of Gotama Buddha's robe is nine by six spans, equal to six and three-quarter by four and-a-half feet.

If the height of man in the age of Gotama was six feet, a robe of six and three-quarter feet, making allowances for a coil round the shoulder would scarcely fit him "from neck to ankle," but the same cannot be said of the *width* of the robe of a "decently clad" priest, which is put down at four and-a-half feet—little above the length for a wrapper provided for by rule given in the fifth case cited above.

Abandoning therefore the standard of nine inches for a *vidatthi*, we shall here notice what has been said on the

subject by a learned Buddhist priest of Siam named Rāsisūriya-bandhu. He agrees with us that Gotama was an ordinary, or a middle-size man of his age, and cites much of the very circumstantial evidence which we have been at great pains to collect in proof of the fact. He does not, however, understand by *sugata vidatthi* an imperial measure, but takes it for granted, that by it Buddha's span was meant. He ridicules the idea of a *sugata vidatthi* having been, as stated by Buddhaghosa, three times the length of the span of an ordinary man of his age. And, though he holds the ancients in high esteem, and acknowledges that to them we are greatly indebted for much of what we know; he nevertheless affirms that in this respect Buddhaghosa's account cannot be accepted, and concludes that part of the subject by—not calling the ancients, as Lord Brougham did, “children” as compared with the age of moderns,—but, boldly asserting, that “we are not the slaves of the ancients,”

In fixing Buddha's height, he says¹ —“Buddha was by one-fourth taller than an ordinary man of *his* age. That is, when you divide such an ordinary man's height into three, three such parts, plus one more, constituted Buddha's height.² Buddha's height, he adds, was, by the carpenter's cubit of the present day, 129 inches.³ His fathom was of the same length.⁴ The height of man in Buddha's age was ninety-two *aṅgulas*⁵ and one *kalā*.⁶ Their fathom ninety-seven *aṅgulas*.

“Now that twenty-three centuries have elapsed since the death of Buddha, and we are in the twenty-fourth century,

1 Free translation from the Pāli.

2 *i. e.*, He was taller by one-third the height of an ordinary man.

3 *i. e.*, ten and three-quarter feet.

4 He agrees here that the height was four times the *hāstha*.

5 *i. e.*, little more than seven and two-third feet.

6 And yet he says Buddha was an ordinary man.

we find the height of man to be seventy-five *añgulas*¹; and their fathom, eighty. *Century after century the height of man is reduced by three kalá.* The height of a child born in that age,² is fifteen and three-quarter *añgulas*, by the finger's breadth of a man of the present age. *The growth of man is at the rate of two and-a-quarter angula per year, from his birth to the completion of his twenty-sixth year.* Then his height in his twenty-sixth year is seventy-four and-a-quarter *añgulas*. The height of a child born in Buddha's age was eighteen and-a-quarter *añgulas* in Buddha's *añgula*. He grew till thirty-three years of age, at the rate of two and three-eighth *añgulas*; and when he had attained his thirty-third year he was 129 inches by the carpenter's cubit.

"The maximum age of man in Buddha's time (Ransisuriya-bandhu continues) was 100 years. That of man at present is seventy-seven. Thirty-four añgulas of an ordinary man of Buddha's age are equal to twenty-four and-a-quarter inches of the carpenter's cubit. Seven masa, or undu seeds constituted the size of the añgulas of an ordinary man of Buddha's age. Those kinds of seeds may be taken as equivalent to seeds of paddy. Be it known, that an inch by the carpenter's cubit represented the añgula of an ordinary man who lived 150 years after Buddha. The custom in Siam at present is to accept one-fourth of a carpenter's inch as a kalá, and one kalá as four anu-kalás; that is, at the rate of seven seeds for an añgula. This agrees with the lineal measure given in Abhidhánapadipiká, and Sammohavino-daniya."

Amidst much that is interesting and contradictory, we notice that the writer has made his calculations on the

1 i. e., six feet three inches,

2 MS. doubtful, contradictory.

supposition that man's stature is reduced by three kalá every century,—a dictum for which there is no more foundation or authority, than for the statement that "the average age of man was greater in Buddha's age" than it is at present. Yet, in testing his measure by the cases already considered we obtain the following results.

Taking the Siamese author's *ángula* (*i. e.*, *sugata ángula*) to represent two inches, that is treating an *ángula* as one-twelfth of a carpenter's two feet rule, we find that

1. A priest's residence was twelve by seven feet.
2. The height of a bed sixteen inches.
3. A cushion or carpet two by one and-a-half feet.
4. The same, with a fringe of one span, will make it three by two and-a-half feet.
5. The under shift four by two feet.
6. A priest's bath-cloth six by two and-a-half feet.
7. A priestess' bath-cloth, four by two feet;
8. And Buddha's robe measured nine by six feet.

If these results are on the one hand in excess of our notions of propriety, from a general view of the principles of ascetism upon which Gotama seems to have enacted his rules—the evidence which we have adduced on the other, as to the stature of Indians in Buddha's age, leads to the conclusion that the dimensions produced upon the standard of Buddhaghosa's measure is inadmissible; and that therefore the standard itself must be rejected. For, according to him—*i. e.*, at twenty-seven English inches per span

1. A priest's residence would be twenty-seven by fifteen and three-quarter feet—a spacious hall more than enough for a nobleman's sitting room even at the present day.

2. A cushion or carpet; four and one-third feet, by three feet four-and-a half inches—would be quite an inconvenient appendage for even an ordinary chair, for which the carpet was intended;

4. The same with a fringe of twenty-seven inches, equal to six and three-quarter feet by five feet seven and-a-half inches, would render its size unreasonably large;—

5. An under shift nine by four and-a-half feet;

6. A bath-cloth, ten feet one and-a-half inches by five feet seven and-a-half inches;

7. The same for a priestess, six and three-quarter feet by three feet four and-a-half inches; and

8. Buddha's robe, twenty and one-third by thirteen and-a-half feet.

In confining our remarks to the last case, it may be stated that the length of the robe is to go round the body, and that its width represents the length to which it is to hang down from the neck. If, therefore, Buddha was eighteen feet high according to the standard measure of Buddhagosa, it is quite evident that the prescribed robe of thirteen and-a-half feet would, with the folds round the neck, scarcely reach his ankle when hung from his shoulder, as it should according to rule; see *Vinaya*.

Hence, we are again forced to abandon all the measures founded upon the supposed length of the Mohammedan *gas*, or the Indian *añgula*, the Siamese standard, and Buddhagosa's lineal measure of twenty-seven inches for a span; and to resort to conjecture founded upon circumstantial evidence, which we shall here notice.

(i.) Both Buddhist and Brahman writers are agreed as to *vidatthi* or *vitasthi* being, not "the span," but "the long span." By "long span" is doubtless meant a measure different from the ordinary span, measured by extending "the thumb and the little finger." That difference consists, moreover, in the *vidatthi* being *longer* than a span, which may be put down as nine English inches. This is further confirmed by Buddha, who lays down in his Canonical Rules, that the *vidatthi* meant by him was the

sugata, not the common, but (see ante) the *imperial* measure. The Greeks would also have us believe that the Indians were larger than the ordinary people of other Asiatic regions. It is thence also reasonable to believe that their span was larger; and, they being nevertheless various, a standard measure was doubtless fixed upon, as the *sugata vidatthi* or “imperial span,” two of which made a *hâstha* or “cubit.” This is the same cubit of which Major-General Cunningham says is longer than 18·158 inches, and which, he adds, is still the “*hâstha* of the Indian Bazaars.” This is moreover generally believed to be the “carpenter’s cubit or the carpenter’s two-foot rule,” which to this day is used in Ceylon—par excellence—as “the cubit.”

ii. When again, we find in History that the ancient Indians kept a constant intercourse with the Egyptians, and that between their habits and the Israelites there was scarcely any difference, we are naturally led to resort to Egyptian and Jewish standards for the ascertainment of the standard for the Indian cubit. Thomasz says, “The cubit of the Nilometer is supposed to be the same as that of the Jews, which is exactly two feet English:—if so, the twenty-four digits will be precisely inches”; and it is very remarkable that the constituent parts of a *hâstha* are twenty-four *aṅgulas*; and *aṅgula* or finger is still the word which the Buddhists of Ceylon use to express a carpenter’s inch, or an inch according to the English standard. This measure, when again applied to the height of a man (which is generally four times a *hâstha*, we obtain eight feet as the stature, nearly the height of an Indian’s height, as stated by the Greeks in round numbers, to be “five cubits” or seven and-a-half feet.

ROYAL ASIATIC SOCIETY,

CEYLON BRANCH.

PROCEEDINGS.

1873-4.

COLOMBO:

WILLIAM HENRY HERBERT, GOVERNMENT PRINTER, CEYLON.

MDCCCLXXV.



ROYAL ASIATIC SOCIETY,

CEYLON BRANCH.

PROCEEDINGS. — 1873-4.

OFFICERS.

PRESIDENT.

Robert Dawson, Esq.

VICE-PRESIDENTS.

C. P. Layard, Esq., C.M.G.; R. V. Dunlop, Esq.,
Geo. Wall, Esq., F.R.A.S.

TREASURER.

George Armitage, Esq.

SECRETARY.

Rev. T. Felton Falkner, F.S.A., F.M.S.

CORRESPONDING SECRETARY.

Lieut. Legge, R.A., F.Z.S.

LIBRARIAN.

H. J. Macvicar, Esq.

COMMITTEE.

J. D'Alwis, Esq.	S. Green, Esq.
E. C. Britton, Esq.	Keppel Jones, Esq.
W. Ferguson, Esq., F.L.S.	F. M. Mackwood, Esq.
J. Ferguson, Esq.,	Rev. J. Scott,
L. De Zoysa Mudaliyar.	

READING COMMITTEE.

J. D'Alwis, Esq.	|	S. Green, Esq.
W. Ferguson, Esq.	|	L. De Zoysa, Mudaliyar, and
Rev. T. F. Falkner, Secretary.		

LIFE MEMBERS.

Davids, T. W. Rhys	...	...	In Europe.
Dawson, R. (President)	...	...	Colombo.
Ferguson, A. M.	...	...	"
Gunn, J.	...	...	"
Nicholson, Rev. J.	...	...	Galle.
Rains, W.	...	...	India.
Slorach, J.	...	...	Europe.

CORRESPONDING MEMBERS.

Boake, Rev B., D.D.	...	...	Australia.
Hume, A. O.	..	...	Calcutta.

HONORARY MEMBERS.

Childers, R. C., Professor	...	...	London.
Holdsworth, E.	..	...	"
Capper, J.	...	...	"
Military Medical Officers, while in Colombo.			

MEMBERS.

Adam, J.	...	Colombo	Bacon, Rev. J., B.D.	Colombo
Adams, A. Y., C.C.S.	In Europe	Bailey, J. B. A, C.C.S.	Manaar	
Alcock, Rev. J....	do.	Bandaranaike	Mudali-	
Alwis, J. D'.	...	Colombo	yar,	...
Andree, J. R.	...	Kandy	Bell, A.	...
Armitage, Geo.	...	Colombo	Berwick, T., C.C.S.	de.

MEMBERS.

Beven, F. ...	Kandy	Herbert, W. H. ...	Colombo
Boake, W. J. S., L.R.C.S., C.C.S. ...	Colombo	Hobbs, R. B. ...	do.
Bowman, H. H. ...	Baddegamma	Holland, E. ...	do.
Britto, C. ...	Colombo	Jones, Keppel ...	do.
Britton, E. C. ...	do.	Jayetilleke, S. Mudali- yar ...	Kurunégala
Byrde, F. W. ...	do.	Jervois, W. G. ...	Hanwella
Coghill, J. D. M., M.D. ...	do.	Joseph, A. O. ...	Colombo
Coles, Rev. S. ...	do.	Koch, Edwin C., M.D., ...	do.
Coomara Swamy, Sir ...	do.	Larkum, H. A. ...	do.
Coomaraswamy, P. ...	Colombo	Laurie, Forbes ...	Dolosbagie
Cottam, H. ...	Gampola	Layard, C. P., C.M.G., (Vice-President) ...	Colombo
Creasy, Sir E. B. ...	In Europe	Lee, L. F., C.C.S. ...	Galle
Creasy, E. B. ...	Galle	Leechman, G. B. ...	Colombo
Cull, J. B., B.A. ...	Colombo	Legge, Lieut. G. V. R.A., F.Z.S. ...	Trincomalee
Daendliker, P. ...	do.	Liesching, L. ...	Colombo
Dawson, S. P. ...	do.	Loos, J., M.D. ...	do.
Deane, H. S. ...	Kandy	Ludovici, L. ...	do.
Dias, H. ...	Colombo	Mackwood, F. M. ...	do.
Dickman, C. ...	do.	Mac Micking, T. ...	do.
Dunlop, R. V., (Vice- President) ...	do.	Macvicar, H. J. ...	do.
Drew, H. ...	do.	Maffett, C. F. ...	do.
Falkner, Rev. T. F., B.A., F.S.A., Hon. Secy. ...	do.	Maitland, J. ...	do.
Ferdinands, C. L. ...	do.	Milne, Geo. ...	do.
Ferguson, W., F.L.S. ...	do.	Mitchell, W. ...	do.
Ferguson, J. ...	do.	Morgan Sir R. F. Kt., ...	do.
Fernando, Rev. C. J. B. ...	do.	Morgan, R. H., B.A. ...	do.
Fyers, Lt.-Col., R.E. ...	In Europe	Morgan, O. S. ...	do.
Gabriel, H. D. ...	Colombo	Nevill, Hugh, C.C.S., ...	Ratnapura
Gibson, J., C.C.S. ...	Badulla	Nicholls, G. ...	Colombo
Gillman, H. W., C.C.S. ...	Galle	O'Halloran, C. ...	do.
Goonetilleke, W. ...	Kandy	Ormsby, R. D., A.I.C.E. ...	Batticaloa
Green, S. ...	Colombo	Perera, J. ...	Kegalla
Green, H. K. ...	do.	Ranasinghe, W. T. ...	Colombo
Grenier, S., J.P., M.M.C. ...	do.	Robinson, E. ...	do.
Grinlinton, J. J., C.E., F.R.G.S. ...	do.	Rodrigue, W. B. ...	do.
Grinlinton, F. H. ...	do.	Ronald, W. B. ...	do.
Hartshorne, B. T., C.C.S. ...	In Europe		

MEMBERS.

Scott, Rev. J. ...	Colombo	Thomas, A. H. ...	Lindula
Sharpe, W. E. T., C.C.S.	Badulla	Thwaites, J., M.D.	Colombo
Sinclair, N. ...	In Europe	Tranchell, Major, M.M.C.	do.
Skeen, W. L. H.	Colombo	VanCuylenberg, R.	do.
Skinner, T. E. B.,		Vanderstraaten,...	do.
C.C.S. ...	Colombo	Vandort, M. G., M.D.	do.
Smither, J. G.,		Wall, G., (Vice-Pres.)	do.
F.R.I.B.A. ...	In Europe	Whyte, A. ...	Kandy
Soysa, C. H. De	Colombo	Wickwar, J. ...	Badulla
Strachan, E. ...	do.	Winzer, J.	In Europe
Swan, E. ...	do.	Zoysa, L. de Mudlr.	Colombo
Symonds, G. H.	do.		

COMMITTEE MEETING.

January 29, 1873.

Present.

Major Fyers, R.E., President,
L. De Zoysa, Mudaliyar,

H. J. Macvicar, Esq.
and J. Capper, Esq.

The Minutes of the previous meeting having been read and confirmed, the Secretary stated that the following papers were ready for reading at the next General Meeting :—

Greek accounts of early Indian Literature.

The games and toys of the Siphalese.

Translations from Dutch Records.

Notes on the identity between Asoka and Pyadasi.

An inscription at Dondra.

The following names were proposed for ballot at the General Meeting :—

H. S. Deane, by Messrs. E. H. Symonds, and
H. J. Macvicar.

H. K. Green, by Messrs. H. J. Macvicar, and
J. Capper.

C. H. De Soyza, by Messrs. L. De Zoysa, and
J. Capper.

R. D. Ormsby, by Messrs. R. Dawson, and
J. J. Grinlinton.

Resolved that the next General Meeting be held on Monday, June 3rd, at an hour to be hereafter ascertained. The Treasurer then read a list of the birds presented to the Society since the last meeting.

COMMITTEE MEETING.

March 21, 1873.

Present.

Major Fyers, R.E., President.	|	I. De Zoysa Mudaliyar,
J. J. Grinlinton, Esq.	|	H. J. Macvicar, Esq.

and J. Capper, Esq.

The Secretary laid on the table a Weather Chart received from the Marine Board of the United States of America.

A letter was read from Lieut. Legge, R.A., Corresponding Secretary, regarding the delay in printing the Society's Journal.

The Secretary explained the cause, as arising from the practice of members altering and even re-printing papers after reading before the Society.

Resolved that a resolution disallowing this practice be submitted to the next General Meeting.

Submitted a list of birds contributed to this Society's Museum since last meeting.

Resolved that in future the Society's Journal be published quarterly, when practicable.

The Secretary stated that the following gentlemen had been named as candidates for membership :—

Messrs. R. B. Hobbs, J. Gibson, J. Horsfall, J. Adams, Banderanaikie Mudaliyar, J. Deligame, and Rev. T. F. Falkner.

READING COMMITTEE.

March 21, 1873.

Present.

Major Fyers, R.E.,	|	H. J. Macvicar, Esq.
L. De Zoysa Mudaliyar,	|	and J. Capper, Esq.

Resolved that the papers read at the two last General Meetings be printed and published in the Society's Journal with as little delay as possible.

COMMITTEE MEETING.

Thursday, May 25, 1873.

Present.

Rev. J. Scott, in the Chair,	|	H. J. Macvicar, Esq.
Geo. Armitage, Esq.	|	L. De Zoysa Mudaliyar, and
E. C. Britton, Esq.	|	J. Capper, Esq.

Read a letter from Mr. Legge, proposing that the Society exchange journals with the Royal Society of Tasmania.

Resolved that the proposal be adopted.

Resolved that the Society communicate with the Governor's Private Secretary in order to ascertain on what day it will be convenient for His Excellency to preside at the next General Meeting, and that the date be in the meantime left open.

Laid on the table two Nos. of "Stray Feathers," from Calcutta, and Proceedings of the Asiatic Society, Bengal, for January and February, 1873.

COMMITTEE MEETING.*September 19, 1873.*

Present.

Major Fyers, in the Chair,	|	H. J. Macvicar, Esq.
R. Dawson, Esq.,	|	L. De Zoysa, Mudaliyar, and
		J. Capper, Esq.

Read and confirmed previous Minutes.

The Secretary stated that the following names were intended to be proposed for ballot at the next General Meeting :—

The Rev. C. B. Fernando, F. W. Byrde, Esq., J. W. Vanderstraaten, Esq., W. B. Rodrigue, Esq., A. Sinclair, Esq., P. Daendliker, Esq., Boyd Moss, Esq., and A. Y. Adams, Esq.

The provisions of the Museum Ordinance were read and considered by the Meeting, in reference to the clause affecting the Society, which was considered advantageous.

The following papers were declared ready for the next meeting.

Translations of a portion of Valentyn's Ceylon, by L. Ludovici, Esq.

On the Brand Marks in Ceylon cattle by J. de Alwis, Esq.

Translations from the Pansiya Panisjataka by L. de Zoysa, Esq.

The Secretary was requested to ascertain what day in the ensuing week would be convenient for His Excellency the Governor to preside at a General Meeting and to issue notice accordingly.

At the suggestion of the Honorary Secretary, the name of the Rev. T. Felton Falkner was added to the list of the Committee of Management.

COMMITTEE MEETING.

Saturday, December 13, 1873.

Present.

Col. Fyers, President,

Geo. Armitage, Esq.

Rev. T. Felton Falkner,

H. J. Macvicar, Esq.

L. de Zoysa Mudaliyar, and

J. Capper, Esq.

Read and confirmed Minutes of previous Meeting.

The Secretary read a letter from the Colonial Secretary regarding repairs of roof of Society's rooms, and in reference to assessment tax, also a second letter consenting to print the Society's Journal at the Government Press.

The names of the following gentlemen were submitted to be ballotted for at next General Meeting:—

L. Liesching, Esq.; A. O. Joseph, Esq.; W. Ronald, Esq.

The following papers were announced as ready for the next Meeting:—

Notes on the occurrence of a rare Eagle new to Ceylon, and of other interesting or rare birds found in Ceylon, by S. Bligh.

Translations from the Dutch Records by R. VanCuylenberg.

Extracts from Valentyn's History of Ceylon by L. Ludovici.

The Secretary laid on the table six copies of Mr. Legge's paper on birds found in the Hambantota district from the Colonial Secretary.

Resolved that the next General Meeting be held on some day next week, and that the Secretary ascertain what day will be convenient for the Governor to preside, and issue notices accordingly.

COMMITTEE MEETING.

March 23, 1874.

Present.

L. de Zoysa, Mudaliyar, | H. J. Macvicar, Esq.
and Rev. T. F. Falkner.

The Minutes of the previous meeting were read and confirmed.

It was decided that the Anniversary Meeting should be held as shortly after the President's return to Colombo as possible.

The following publications were laid on the table :—

Journal of the Asiatic Society of Bengal, Proceedings.

Stray Feathers.

Bulletins of Signal Service, 1872.

Archæological Survey of India, Vol. III.

COMMITTEE MEETING.*Monday, June 8, 1874.*

Present.

Lt.-Col. Fyers, R.E., President, | H. J. Macvicar, Esq., Treasurer,
Rev. T. F. Falkner, Secretary.

The Minutes of the last meeting were read and confirmed.

It was resolved that the Anniversary Meeting hitherto unavoidably postponed should be held on Tuesday, June 30.

The following Office-bearers and Committee were suggested for the current year :—

President—R. Dawson, Esq.

Vice-Presidents—C. P. Layard, Esq.

R. V. Dunlop, Esq.

G. Wall, Esq.

Treasurer—Geo. Armitage, Esq.

Secretary—Rev. T. Felton Falkner.

Corresponding Secretary—Lieut. Legge, R.A.

Librarian—H. J. Macvicar, Esq.

Committee.

J. de Alwis, Esq., E. C. Britton, Esq., W. Ferguson, Esq., J. Ferguson, Esq., S. Green, Esq., Keppel Jones, Esq., F. M. Mackwood, Esq., Rev. J. Scott, and L. de Zoysa, Mudaliyar.

The following publications were laid on the table :—

The Society's Journal for 1873-74.

The Ibis, January, 1874.

Asiatic Society Bengal, Journal, February 1874.

Indian Birds—Allan Hume.

GENERAL MEETING.

Monday, February 3, 1873.

Present:

His Excellency the Governor, presiding.

Lient.-Col. Fyers,	R. VanCuylenburg, Esq.,
T. Berwick, Esq.,	K. Jones, Esq.,
L. de Zoysa, Esq.,	Jas. Alwis, Esq.,
R. Dawson, Esq.,	A. M. Ferguson, Esq.,
L. Ludovici, Esq.,	J. Ferguson, Esq.,
J. Capper, Esq.,	Rev. J. Scott, &c.

Mr. Capper (Honorary Secretary) laid on the table lists of contributions to the Museum, and books purchased for the Library. He also submitted a number of ancient copper coins, being a portion of about 2,500 found in a chattie, by Mr. Elphinstone of Logie, whilst preparing land for planting on the Palampitia Estate in Ambagamuwa; they were discovered within what had once been a stone fort, about 150 feet in circumference, and inside which were trees 18 inches in diameter, which must have sprung up since the fort was deserted. It was situated closely adjacent to the old Sinhalese path from Ruanwelle to Ambagamuwa, and according to native tradition, the locality was once the residence of a Kandyan king, said to have been driven from the spot by Portuguese or Dutch troops.

Resolved that the thanks of the Society be given to the donors of the several contributions.

The following gentlemen having been proposed and seconded for election as members, their names were submitted to the ballot, and the result being favourable they were declared duly elected.

Messrs. C. H. de Soysa, H. S. Deane, A. K. Green, R. D. Ormsby, and E. Swan.

The following papers were then read:—

On the Toys and Games of the Siphalese, by Mr. Ludovici.

Greek Accounts of Ancient Literature in India, by Mr. J. de Alwis.

Translation from Dutch Records, by Mr. R. VanCuylenburg.

Translation of a Dambool Inscription, with notes, by Mr. T. Rhys David.

On the Identity of Asoka and Pyadasie, by L. de Zoysa, Mudaliyar.

The Governor having expressed the gratification with which he had listened to the papers just read the business terminated.

GENERAL MEETING.

Tuesday, June 3, 1873.

Present:

His Excellency the Governor, presiding.

Lieut.-Col. Fyers,	F. M. Mackwood, Esq.,
R. Dawson, Esq.,	Rev. J. Scott,
H. J. Macvicar, Esq.,	J. Thwaites, Esq., M.D.,
Geo. Armitage, Esq.,	L. Ludovici, Esq.,
L. de Zoysa, Esq.,	A. M. Ferguson, Esq.,
J. de Alwis, Esq.,	W. Ferguson, Esq.,
R. V. Dunlop, Esq.,	R. VanCuylenburg, Esq.,

A. Whyte, Esq.

The Secretary laid on the table the Journal and Proceedings of the Society for 1871-72 just printed, copies of which will be issued to all members who have paid up their subscriptions for that period.

The Secretary laid on the table lists of objects added to the Museum since the last meeting, comprising four birds presented by Mr. W. V. Legge, 16 by Mr. H. J. Macvicar, and 45 shot and prepared by the Taxidermist, a fish presented by Mr. Geo. Nicholls, a number of coins, fish, &c., by Chas. P. Karunaratne of Negombo, a chisel found below the surface of forest at Rúgam, and a specimen of lignite from Deltota, also copy of an inscription from the Muhandiram of Galagedara.

The following gentlemen were then ballotted for and elected members of the Society:—

The Rev. T. Felton Falkner, F.S.A.

Proposed by Lieut.-Col. Fyers.

Seconded by the Secretary.

C. E. Strachan, Esq.

Proposed by Geo. Armitage, Esq.

Seconded by E. C. Britton, Esq.

T. Berwick, Esq.

Proposed by C. P. Layard, Esq.

Seconded by Geo. Armitage, Esq.

R. B. Hobbs, Esq.

Proposed by the Secretary.

Seconded by H. J. Macvicar, Esq.

J. Gibson, Esq.

Proposed by Lieut.-Col. Fyers.

Seconded by H. J. Macvicar, Esq.

J. Horsfall, Esq.

Proposed by Lieut.-Col. Fyers.

Seconded by E. C. Britton, Esq.

R. O. S. Morgan, Esq.

Proposed by R. VanCuylenburg, Esq.,

Seconded by the Secretary.

Bandaranaike Mudaliyar.

Proposed by H. J. Macvicar, Esq.

Seconded by the Secretary.

The following papers were then read:—

The Stature of Gotama Buddha, by Mr. J. de Alwis.

On the Island distribution of the Birds in the Society's Museum, by Mr. W. V. Legge.

Description of a supposed new genus of Ceylon Batrachians, by Mr. W. Ferguson.

Text and translation of a rock inscription at Pepiliyána, near Kotta, by L. de Zoysa, Mudaliyar.

The following resolution was then

Proposed by Lieut.-Col. Fyers,
Seconded by R. Dawson, Esq.

That great delay and inconvenience having been caused by the members re-writing portions of their papers after they have been read at a General Meeting, the Secretary be requested to retain possession of all papers that have been read before the Society, until sent to the Committee on papers.—Carried.

The Secretary proposed the following resolution:—

That the rule of the Parent Society in regard to defaulting members be adopted, and that after a defaulter shall have been noticed three times without avail his name be removed from the books of the Society.

The resolution was seconded and adopted.

The Governor remarked that as it was his intention to introduce a vote at the next meeting of the Council, for the erection of a Public Museum, and as members of this Society would be accorded certain privileges beyond those granted to the public, perhaps that consideration might induce gentlemen to be more punctual with their subscriptions in order to retain their membership.

Lieut.-Col. Fyers then proposed a vote of thanks to His Excellency the Governor for his kindness in presiding, to which the Governor replied.

GENERAL MEETING.

Thursday, September 25, 1873.

Present:

His Excellency the Governor, presiding.

Lieut.-Col. Fyers,	Dr. VanDort,
J. de Alwis, Esq.,	J. Ferguson, Esq.,
L. de Zoysa, Esq.,	J. J. Grinlinton, Esq.,
H. J. Macvicar, Esq.,	W. C. Brodie, Esq.,
J. Capper, Esq.,	R. VanCuylenburg, Esq.,

Rev. J. Scott.

The Minutes of the previous meeting having been confirmed, the Secretary laid on the table a list of the additions to the Museum, since the date of the last Meeting, viz., forty-six specimens of birds by H. J. Macvicar, Esq., one by F. H. Grinlinton, Esq., and twelve collected by the Society's Taxidermist.

The Librarian laid on the table a list of the books, &c., added to the Library since the last meeting, viz.:—

Dalton's Descriptive Ethnology of Bengal, by the Government of Bengal.

Four Journals of the Asiatic Society of Bengal, and Proceedings of the Asiatic Society of Bengal.

Notes on Sanscrit MSS., by Babu Rajendra Lal Mitra, from the author.

Stray Feathers, Indian Antiquary for August, and the Ibis for July.

The following gentlemen were then ballotted for, and duly elected members:—

The Rev. C. J. B. Fernando,

Proposed by L. Ludovici, Esq.

Seconded by Dr. Vandort.

F. W. Byrde, Esq.

Proposed by J. Capper, Esq.

Seconded by H. J. Macvicar, Esq.

J. W. Vanderstraaten, Esq.

Proposed by L. Ludovici, Esq.

Seconded by Dr. Vandort.

W. B. Rodrigue, Esq.

Proposed by L. Ludovici, Esq.

Seconded by Dr. Vandort.

A. Sinclair, Esq.

Proposed by J. Ferguson, Esq.

Seconded by J. Capper, Esq.

P. Daendliker, Esq.

Proposed by J. Ferguson, Esq.

Seconded by J. Capper, Esq.

Boyd Moss, Esq.

Proposed by J. Capper, Esq.

Seconded by Lieut.-Col. Fyers.

A. Y. Adams, Esq.

Proposed by Lieut.-Col. Fyers.

Seconded by J. Capper, Esq.

The Secretary intimated that he intended at the next General Meeting to resign his duties in connection with the Society.

The following papers were then read :—

Translations from the Pansiya-panasjataka, by L. de Zoysa, Mudaliyar.

On the Brand Marks on the Ceylon Cattle, by Mr. Jas. de Alwis.

GENERAL MEETING.

Thursday, December 18, 1873.

Present.

His Excellency the Governor, presiding.

Lieut.-Col. Fyers,	J. de Alwis, Esq.,
Rev. T. Felton Falkner,	L. de Zoysa, Esq.,
R. Dawson, Esq.,	R. O. S. Morgan, Esq.,
H. J. Macvicar, Esq.,	W. Henry Herbert, Esq.,
W. Ferguson, Esq.,	R. VanCuylenberg, Esq.,

J. Capper, Esq.

Read and confirmed Minutes of the last General Meeting.

The Secretary laid on the table a list of the books and periodicals added to the Library, also a list of additions to the Museum.

The following gentlemen were then proposed and seconded for by ballot:—

L. Liesching, Esq.

Proposed by J Capper, Esq.

Seconded by Lieut.-Col. Fyers.

A. O. Joseph, Esq.

Proposed by R. VanCuylenburg, Esq.

Seconded by L. de Zoysa, Esq.

W. Rositer, Esq.

Proposed by H. J. Macvicar, Esq.

Seconded by J. Capper, Esq.

A ballot having been taken they were found to be duly elected.

The Secretary laid a copy of the First Part of the Society's Journal for 1873 on the table.

The following papers were then read :—

Notes on the occurrence of a rare Eagle new to Ceylon, and other interesting or rare birds, by Mr. R. S. Bligh.

Translations from the Dutch Records, by Mr. R. VanCuylenburg.

The Secretary having tendered his resignation, preparatory to his departure from the Island, it was proposed by His Excellency the Governor, seconded by Lieut.-Col. Fyers.

"That this Society accepts with much regret the resignation of Mr. Capper, and beg to offer him their sincere thanks for his earnest and efficient services in endeavouring to promote and maintain the interests of the Branch of the Asiatic Society in Ceylon."—Carried.

It was then proposed by L. de Zoysa, Mudaliyar, and seconded by Mr. J. de Alwis.

"That in recognition of the good services rendered from the commencement of the Society by Mr. Capper, he be elected an Honorary Member of the Society."—Carried.

The Rev. T. Felton Falkner was appointed Secretary of the Society, in Mr. Capper's place.



PROCEEDINGS. — 1874.

GENERAL MEETING.

July 2, 1874.

Present :

Geo. Armitage, Esq., in the Chair.

E. C. Britton, Esq.,	|	Dr. Loos,
L. De Zoysa, Mudaliyár,	|	Dr. Vandort, and
R. VanCuylenberg, Esq.,	|	The Rev. T. F. Falkner.

The following gentlemen were duly ballotted for and elected:—

Rev. Jas. Bacon, B.D.,	proposed by the Rev. T. F. Falkner,
	seconded by J. Capper, Esq. ;
J. B. Cull, Esq., B.A.,	proposed by the Rev. T. F. Falkner,
	seconded by Geo. Armitage, Esq. ;
H. Drew, Esq.,	proposed by the Rev. T. F. Falkner,
	seconded by E. C. Britton, Esq. ;
S. P. Dawson, Esq.,	proposed by H. J. Macvicar, Esq.,
	seconded by the Rev. T. F. Falkner ;
A. Allardyce, Esq.,	proposed by the Rev. T. F. Falkner,
	seconded by J. Capper, Esq.

It was agreed that the Annual Meeting should be held on Thursday, July 9th, at 3 o'clock, and that members be notified accordingly.

It was proposed by Mr. Britton and seconded by Mr. VanCuylenberg, that the following motions be submitted at the next General Meeting :—

1. "That the subscribers have the option of paying ~~Rs~~ 10-50 in advance, or Rs 1 monthly, as their subscription."

2. "That a Peon be appointed to collect the subscriptions."

L. De Zoysa, Mudaliyár, gave notice that he should tender his resignation of the office of Librarian at the next General Meeting.

ANNUAL MEETING.

July 9, 1874.

Present.

Lieut.-Col. Fyers, R.E., in the Chair.

R. V. Dunlop, Esq.,	Geo. Armitage, Esq.,
S. Green, Esq.,	E. C. Britton, Esq.,
J. D'Alwis, Esq.,	The Rev. J. Bacon,
L. De Zoysa, Mudaliyár,	J. Thwaites, Esq.,
E. F. Prins, Esq.,	T. Berwick, Esq.,
J. W. Vanderstraaten, Esq.,	K. Jones, Esq.,
R. VanCuylenberg, Esq.,	J. Capper, Esq.,
J. Ferguson, Esq.,	N. Sagarasingham, Esq.,
O. S. Morgan, Esq.,	A. O. J. ... and
The Rev. T. F. Falkner.	

The following gentlemen were proposed and seconded, and duly elected members of the Society :—

C. F. Maffett, Esq., proposed by the Rev. T. F. Falkner,
seconded by the Rev. J. Bacon.

W. P. Ranasingha, Esq., proposed by L. De Zoysa, Mudaliyár,
seconded by J. De Alwis, Esq.

The Secretary read the Annual Report, also letters received from Lieut.-Col. Cunningham, Director-General of the Archaeological Survey of India, and the Director of the Anthropological Institute of Great Britain and Ireland.

The presentation of a number of coins by F. W. Byrde, Esq., of Dimbula, was announced, and the coins laid on the table. A vote of thanks was ordered to be conveyed to the donor.

The President read his address, and the election of the Officers and Committee, as nominated at the Committee Meeting of June 8th, was sanctioned.

The following gentlemen were appointed to act as a Reading Committee :—

S. Green, Esq., J. De Alwis, Esq., W. Ferguson, Esq., L. De Zoysa, Mudaliyár, and the Rev. T. F. Falkner.

It was proposed by C. Britton, Esq., and seconded by R. VanCuylenberg, Esq., "that it be optional for the Members to pay their subscriptions either by ~~Rs~~ 1 monthly or ~~Rs~~ 10-50 in advance; and that a Peon be employed to collect the subscriptions."

It was proposed by R. V. Dunlop, Esq., and seconded by the Secretary, "that the subscription remain as before, but that a collector be appointed to get in the subscriptions, and paid by a

commission." After a slight discussion, the latter was carried unanimously.

A letter was laid on the table from the French Consul at Galle, on the subject of a Congress at Paris in 1875.

Proposed by J. De Alwis, Esq.,

Seconded by J. Capper, Esq.,

"That the Secretary be authorized to open a correspondence with scientific bodies in Europe and the Colonies, with a view to an exchange of Journals and Proceedings."

Proposed by R. V. Dunlop, Esq.,

Seconded by the Rev. T. F. Falkner,

"That the thanks of the Ceylon Branch of the Asiatic Society be given to Lieut.-Col. Evers for the valuable assistance rendered to the Society during his tenure of the important office of President."

GENERAL MEETING.

November 2, 1874.

Present.

His Excellency the Governor, in the Chair.

R. Dawson, Esq., President,
Geo. Wall, Esq., Vice-President,
W. Ferguson, Esq.,
W. H. Herbert, Esq.,
Dr. Loos,

L. Liesching, Esq.,
A. Allardyce, Esq.,
R. VanCuylenberg, Esq.,
H. J. Macvicar, Esq.,
Geo. Armitage, Esq.

O. S. Morgan, Esq.

The Rev. T. F. Falkner, Secretary.

The Minutes of the last meeting having been read and confirmed, the Secretary read a letter from Mr. Macvicar, announcing a donation of birds from that gentleman, with brief remarks, also an extract from a letter from the Taxidermist with reference to a specimen of "*Loris Gracilis*" presented by him to the Society.

The following gentlemen were then elected members of the Society:—

D. F. Browne, Esq.,	proposed by the Secretary,
	seconded by A. Allardyce, Esq. ;
J. N. Keith, Esq., }	proposed by George Armitage, Esq.,
F. C. Loos, Esq., }	seconded by E. C. Britton, Esq. ;
E. Heelis, Esq.,	proposed by F. W. Byrde, Esq.,
	seconded by the Secretary.

Papers were then read :

- (1.)—On preparing and mounting insects for the Binocular Microscope, by Staniforth Green, Esq.
- (2.)—On certain Játakas relative to the sculptures recently discovered in Northern India, by L. De Zoysa, Mudaliyár.
- (3.)—On a species of vulture (*Neophron Perenopterus*) new to Ceylon, shot at Nuwara Eliya by Alexander Whyte, Esq.
- (4.)—On a snake found in the Southern Province, supposed to be new to Ceylon, by W. Ferguson, Esq.

Votes of thanks were duly proposed and seconded to the contributors, and to His Excellency for so kindly presiding.

RULES AND REGULATIONS OF THE SOCIETY.

[*Mem.*—The Asiatic Society of Ceylon was instituted 7th February, 1845; and by the unanimous vote of a Special General Meeting of the Royal Asiatic Society, held on the 7th February, 1846, it was declared a Branch of that Society, under the designation of the Ceylon Branch of the Royal Asiatic Society.]

1. The design of the Society is to institute and promote inquiries into the History, Religion, Literature, Arts, and Social Condition of the present and former inhabitants of this Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology.

2. The Society shall consist of Resident or Ordinary, Honorary, and Corresponding Members; all elected by ballot at some General Meeting of the Society.

3. Members residing in any part of Ceylon are considered resident.

4. Persons who contribute to the objects of the Society in an eminent and distinguished manner, are eligible as Honorary Members.

5. Persons residing at a distance from Colombo may, upon special grounds, and with the recommendation of the Committee, be elected Corresponding Members.

6. Honorary and Corresponding Members shall not be subject to any fee on entrance, or any annual contribution, and are to be admitted to the meetings of the Society, and to the privilege of the Library, but are not to vote at meetings, or be elected to any of its offices, or take any part in its private business.

7. All Military Medical Officers resident, or who may reside in Ceylon, are Honorary Members of the Society without entrance fee or subscription.

8. Every ordinary Member of the Society shall pay, on admission, an entrance fee of half a guinea, and an annual subscription of one guinea. Annual subscriptions shall be considered due on the 1st of January of each year. Members who fail to pay their subscriptions by the end of the year (provided they have been called for), shall be considered to have relinquished their connection with the Society.

9. The privilege of a Life Membership may be ensured by the payment of £10 10s., with entrance fee, on admission; £8 8s., after two years; and £7 7s., after four or more years' subscriptions.

10. The Office-bearers of the Society shall be, a President, two Vice-Presidents, Treasurer and Secretary, with a Librarian.

Curator of the Museum, and Conservator of the Meteorological and other scientific instruments of the Society :—all appointed from time to time by open vote at some General Meeting of the Society; and their functions shall be as follows :—

- (1.) The President, and in his absence one of the Vice-Presidents, shall take the Chair at all meetings of the Society and of the Committee, maintain order, collect the votes, and cause the laws of the Society to be observed and enforced.
- (2.) The Treasurer shall receive, collect, and pay out all moneys on behalf of the Society, keep an account thereof, with the vouchers, and submit a statement of the pecuniary affairs of the Society to the Anniversary Meeting, and at other times as may be required.
- (3.) The Secretary shall arrange, give notice of, and attend, all meetings of the Society and of the Committee, and record their proceedings; he shall also edit the Journal, and exercise a general superintendence under the authority of the Committee.
- (4.) The Librarian, Curator of the Museum, and Conservator of the Scientific Instruments belonging to the Society, will take charge of the books and other articles committed to them respectively, keep a correct list thereof, and generally conform in their management to the Rules of the Society in that behalf, or in the absence of such, to the directions of the Committee, having respect at all times to the safety and proper condition of the articles, and to the interests of the Society in their increase and improvement: the Curator of the Museum, in particular, taking care to superintend the reception of all articles in that Department transmitted to the Society, and have the same speedily submitted to examination, reported on, and suitably arranged.

11. The affairs of the Society shall be managed by a Committee of nine Members, (with power to add to their number) in addition to Office-bearers, elected in like manner; but subject always to the Rules and Regulations passed at General Meetings; three to be a quorum.

12. Members desirous of proposing persons for admission to the Society shall give notice of the same to the Secretary, in writing, at least a fortnight before the assembly of a General Meeting. Admission to Membership of the Society shall be by ballot at any General Meeting. No candidate to be considered as elected, unless he has in his favour two-thirds of the votes taken.

13. A General Meeting of the Society shall be held quarterly namely, on the 7th day of February or first lawful day thereafter

and in the first week of the months of May, August, and November, and at such other times as may be determined by the Committee: due notice of the Meeting, and of any intended motion which does not come through the Committee, except the nomination of new Members, being always first given by the Secretary.

14. All papers and communications to the Society shall be forwarded to the Secretary at least a fortnight before the assembly of the General Meeting at which they are to be submitted; when they shall be read by the Author, or in his absence by the Secretary, or some Member of the Society.

15. All papers and other communications to the Society read or submitted at any General Meeting, shall be open to free discussion; and such papers shall be printed in the transactions of the Society as shall have been approved of by the Committee on Papers.

16. The course of business at General Meetings shall be as follows:—

- (1.) The Minutes of the last Meeting shall be read by the Secretary, and signed by the Chairman.
- (2.) Reports of Committees shall be read, and communications made of all articles received, and donations to the Society.
- (3.) Any specific or particular business submitted by the Committee, or appointed or open for consideration, shall be proceeded with.
- (4.) Candidates or new Members shall then be proposed, balloted for, and admitted or otherwise, as the case may be.
- (5.) Papers and Communications for the Society shall then be read.

17. Special Committees may be formed for the prosecution of any specific object or matter of research; but these must be named at a General Meeting; and they will act as much as may be in co-operation with the Secretary of the Society, who will also be a constituent member of all such Committees.

18. Every Member of the Society has the privilege of introducing, either personally or by a card, one or two visitors to the General Meetings.

19. One copy of each Journal shall be sent by the Secretary to every member who has paid his subscription for the current year, and to every Honorary Member resident in Ceylon, and every such Member may procure a second copy, on application to the Secretary. Members requiring more than two copies of the Journal can be supplied with them at half the price charged to the public.

20. Evening Meetings shall be held once a month, or at other times as may be arranged, for discussion on papers read, or to be read at General Meetings, (such papers however not neces-

sarily being before the meeting,) the mutual improvements of the members, and the promotion of the objects and advancement of the interests of the Society.

21. Members who have been absent from Ceylon, on their return to the Island, have the privilege of re-joining the Society within twelve months of their arrival, on payment of the subscription for the current year.

22. It shall be competent for any General Meeting to suspend temporarily any of the above Rules.

RULES OF THE LIBRARY.

1. All Books borrowed from the Library shall be duly entered in the Receipt Book, with the date of giving out; and the date of the return, which latter shall be initialled by the Librarian.

2. No book to be written on, or injured in any respect whatsoever, and every book borrowed shall be returned in proper condition, as received.

3. The period for which books borrowed may be kept shall be as follows:—

(1.) Periodicals, and numbers or volumes of a series, while they remain unbound, for 14 days only, and no more.

(2.) Books and Periodicals must be returned at the end of the month in which they were issued, to enable the Librarian to verify his Catalogue. Members not residing in Colombo may retain a book for a period not exceeding three months. But

(3.) All books borrowed, of whatsoever description the same may be, shall be returned to the Library one week at least before the 7th of February in every year,—that pamphlets and serials may be bound up, and the Catalogue corrected; and that a proper report on the state of the Library may be prepared for the Anniversary Meeting.

4. Dictionaries, and works of reference, or of special rarity or value, do not go out; they remain in the Library for use or inspection; and Periodicals lie on the table for one week.

5. All works in the Library, or on the table of the Society, may be seen and consulted by Members, and also by others properly recommended, with the leave of the Librarian, or of his assistants under his direction.

THE MUSEUM.

No article under the charge of the Curator of the Museum, or of the Conservator of Scientific Instruments belonging to the Society, shall be moved or touched but by the Curator and Conservator respectively, or their assistants under their express direction.



"A book that is shut is but a block"

CENTRAL ARCHAEOLOGICAL LIBRARY

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